

CONTRACT AWARD

Date of Award: October 30, 2017

Contract ID: 0000000000000000000043963

Event ID: EVT0005180

Replace Contract: EVT0000546

SOK Procurement Officer: Bonnie L Edwards
Telephone: 785/296-3125
E-Mail Address: bonnie.edwards@ks.gov
Web Address: <http://admin.ks.gov/offices/procurement-and-contracts>

WSU Procurement Officer: Robby Murray
Telephone: 316-978-5185
Email Address: robby.murray@wichita.edu

Item: Furniture, Office, Library, School, Ergonomic and Laboratory

Agency/Business Unit: Kansas Department of Administration

Statewide Mandatory Use

Period of Contract: January 1, 2018 through December 31, 2023

Contractor: National Office Furniture Inc.
1610 Royal Street
Jasper, IN 47549-0001

Toll Free Telephone: 800-482-1213
Local Telephone: 812-634-3013
Fax: 812-481-6166

Website: <https://www.nationalofficefurniture.com/industries/state-local-government/kansas>.

Payment Terms: Net 30

Political Subdivisions: Pricing is available to the political subdivisions of the State of Kansas.

Procurement Cards: Agencies may use a P-Card for purchases from this contract.

Administrative Fee: Administrative Fees have been incorporated into the unit prices of this contract.

Note: All orders must be placed through the Dealers listed on Page 2 of this Award Document

The above referenced contract award was recently posted to Procurement and Contracts website. The document can be downloaded by going to the following website: <http://www.da.ks.gov/purch/Contracts/>

Dealers:

John A. Marshall (Contract #44171)

Banner ID: X10003232

Jennifer Drace

100 N. Broadway, Ste. 120

Wichita, KS 67202

Telephone: 316-262-5300

Fax: 316-262-5755

Email: jdrace@jamarshall.com

BA Designs (Contract #44155)

Banner ID: X10002303

Lee Kimsey

4119 SW Southgate Dr.

Topeka, KS 66609-1227

Office: 785-267-8100

Fax: 785-266-8116

Email: lkimsey@badesigns-ks.com

3. Office Furniture Requirements

These are minimum requirements used as a basis when pricing each category listed on the Cost sheet. All bid prices shall be F.O.B. destination, Prepaid and allowed (included in the bid price) unless otherwise specified. Which means delivered to a state agency's receiving dock or other designated point as specified in this solicitation without additional charge.

TABLES – CONFERENCE, TRAINING & PUBLIC WORK AREA

Mandatory Minimum Requirements:

1. All products offered in response to this proposal must meet ANSI/BIFMA X5.5-2008 Desks/Table Products Tests.
2. All products shall be standard catalogue items for which printed literature, specifications, and certified test results are available.
3. Desks and tables shall be designed in a manner that allows assembly and disassembly to occur with minimal disruption, time, noise volume, and space usage.
4. Manufacturer/Dealer must provide standard trim for all exposed ends, junctions, corners or changes in height.
5. All products must have an identification tag/sticker which must include the following information: manufacturer's name, model number, and year built.

Laminate Conference Tables: Tops to be a minimum of 1-1/4" thick particle board (45 lbs. density or better) covered and self-edged with high pressure laminate. Slab bases to be 2" thick and constructed same as the tops. Standard laminate finishes acceptable.

Wood Veneer Conference Tables: Tops to be a minimum of 1-1/4" thick, bases to be 2" thick and constructed same as the tops.

Adjustable Height Work Surfaces: Must provide adjustable heights for children and adults, printer cable, power cord, wire pass through slots, and wire management system.

Folding Tables: Tops to be a minimum of 3/4" high density (45 lbs. or better) solid core, and to be surfaced with .022" (or thicker) high pressure laminate. Standard top and frame finishes are acceptable. Shall include Manufacturers standard five (5) year warranty.

Computer Training Tables: Must provide fixed and adjustable heights for both children and adults, printer cable, power cord, wire pass through slots, wire management system, and Keyboard tray.

CRT Data Station Tables: Proposed products shall be covered by a one (1) year or longer Manufacturer's warranty. Bid price quoted must include as a minimum selectivity of oak and/or walnut plastic laminate surfaces and black or putty enamel metal parts

DESKS AND SYSTEMS FURNITURE

Mandatory Minimum Requirements:

1. **All products offered in response to this proposal must meet ANSI/BIFMA X5.5-2008 Desks Products Tests.**
2. All products shall be standard catalogue items for which printed literature, specifications, and certified test results are available.
3. Desks shall be designed in a manner that allows assembly and disassembly to occur with minimal disruption, time, noise volume, and space usage.
4. Manufacturer/Dealer must provide standard trim for all exposed ends, junctions, corners or changes in height.
5. All products must have an identification tag/sticker which must include the following information: manufacturer's name, model number, and year built.

All secretarial units shall have:

1. At least a five-unit secretarial stationery tray included.
2. All desks shall have a center drawer with center locking mechanisms to lock all drawers (extensions accepted).
3. Desks may be ordered without center drawers but cost will not exceed the price for desks with center drawers.
4. File drawers shall be furnished with compressor follower block.
5. One sliding reference shelf to be furnished with each desk.
6. All desks and return units with cabinets, including credenzas, must be delivered preassembled with legs installed.
7. All proposed Desk Series must have available matching or compatible companion units such as tables and credenzas.
8. Legs and drawer hardware shall be Manufacturer's standard chrome finish for the series proposed.
9. Bidder must indicate product series of companion units and provide a price list for all components available within that series.

BOOKCASES

Mandatory Minimum Requirements:

1. **All products offered in response to this proposal must meet ANSI/BIFMA X5.9-2004 Storage Units Tests.**
2. **All products shall be standard catalogue items for which printed literature, specifications, and certified test results are available.**

Book Cases shall be designed in a manner that allows assembly and disassembly to occur with minimal disruption, time, noise volume, and space usage.

All products must have an identification tag/sticker which must include the following information: manufacturer's name, model number, and year built.

FILES AND STORAGE

Mandatory Minimum Requirements:

1. All products offered in response to this proposal must meet ANSI/BIFMA X5.9-2004 Storage Units Tests.
2. All products shall be standard catalogue items for which printed literature, specifications, and certified test results are available.
3. Files and Storage shall be designed in a manner that allows assembly and disassembly to occur with minimal disruption, time, noise volume, and space usage.
4. All products must have an identification tag/sticker which must include the following information: manufacturer's name, model number, and year built.

Lateral File Requirements:

1. **General:** The lateral filing cabinets shall be of a single depth to accommodate filing legal or letter size materials laterally (side-by-side) and front to back in the same cabinet, with optional accessories. The lateral steel file cabinets described herein must be standard and continuing items in the Manufacturer's product line and shall be identified by regular catalog number from the published catalog.

2. **Materials:** All materials used shall be free from defects that affect serviceability or appearance of the finished product.
1. **Steel:** Steel sheets used in fabrication of the file cabinets shall be commercial quality. All steel shall be smooth, free from rust, scale, pits, scratches, laps and buckles affecting strength.
2. **Finish:** Final finish for the cabinet, drawers and drawer surfaces shall be baked enamel or powder coat. Colors and application shall be in accordance with the Manufacturer's own specifications.
3. **Construction:** All welding and mechanical attachments shall provide rigidity to the completely assembled unit to prevent misalignment, sagging, binding of parts or other damage to cause interference with operation of drawers and suspension, lock mechanism and other moving parts, when loaded and tested as specified herein. Any exterior welds shall be smooth; interior welds shall be finished to eliminate sharp edges or rough surfaces that might cause personal injury.
4. **Drawers and Shelves:** File drawers shall be a solid, fixed front type, with double wall construction at least 2" in height of drawer front. Shelf shall be a roll-out type with receding doors. Drawers and shelves options shall provide for filing letter and legal-size materials laterally (side-by-side) and front to back, in a variety of methods; provisions for hanging file folders may be integral with the drawer and shelf design or may be a separate attachment. Drawers and shelves shall also be separate attachments. Drawers and shelves shall also be designed to hold vertical dividers (inserts) on not less than two-inch (2") centers across the full compartment width. When called for, no less than three (3) dividers shall be furnished with each compartment. Drawers and shelves shall fit squarely in their openings. The ends shall be formed and finished to eliminate roughness and sharp edges which affect serviceability or appearance, or which might cause personal injury.
5. **Suspension:** Drawer and roll-out shelf suspension system shall be of the progressive type with free rolling rollers, balls or fixed journal rollers of the ball bearing or roller bearing type shall be factory lubricated and shall travel easily, quietly and smoothly. Suspension shall allow a filing compartment to extend outward until the compartment back is out of the cabinet, but not more than 1-1/4 inches. Suspension members, including case channels, shall be finished following the best commercial standards for proper protection and durability. Suspension shall not cause binding when opening or closing drawers or shelves. Suspension system supporting each drawer or shelf shall assure smooth and easy operation of the drawer or shelf.
6. **Operation:** Extension of the drawers or shelves may be manual or automatic (door actuated). Drawers in the closed position shall remain closed (no creeping open).
7. **Locking Device:** Locks shall be supplied as an option and, when requested, shall be of a tumbler type or approved equivalent. The lock shall secure all filing compartments and/or doors simultaneously (gang lock). NO less than 150 different key changes shall be offered. Master key option must be available. Duplicate keys shall be furnished with each locking cabinet.
8. **Safety Interlock:** All cabinets shall be provided with a positive mechanical interlock mechanism. The mechanism shall be such that under the condition where one compartment is extended beyond the fully closed position, no other compartment in the compartment in the cabinet can be extended more than 1 ½ inches beyond the face of the cabinet.
9. **Out Stops and Bumpers:** The cabinet shall have out stops to prevent drawers or shelves from falling out of the cabinet when they are fully extended and in-stops or bumpers to prevent metal-to-metal contact between the rear of the drawers, shelves, suspension, and tracks and the back of the cabinet case. Bumpers shall be rubber composition or other resilient material and shall be installed in a manner to withstand a normal rebound without damage.
10. **Glides:** A minimum of 4 leveling glides shall be provided. The base of the glide shall be not less than 0.75" dia. And shall have a corrosion-resistant finish or plastic surface that is smooth so as not to scratch floor surfaces.
11. **Bolts, Nuts, Screws and Accessories:** The bolts, nuts, screws and accessories shall be made to resist rust by electro-galvanizing or by zinc, chromium or cadmium plating, as commercially produced by Manufacturers of these items unless otherwise specified herein.

Vertical File Requirements:

1. **General:** cabinets offered shall accommodate legal and letter size materials, with optional accessories. All filing cabinets shall meet the requirements as detailed herein. Vertical steel file cabinets described herein must be standard and continuing items in the Manufacturer’s product line and shall be identified by regular catalog numbers from his published catalog.
2. **Materials:** All materials used shall be free from defects that affect serviceability or appearance of the finished product.
3. **Steel:** Steel sheets used in the fabrication of the file cabinets shall be commercial quality. All steel shall be smooth, free from rust, scale, pits, scratches, laps and buckles affecting strength.
1. **Finish:** Final finish for the cabinet, drawer and drawer surfaces shall be baked enamel or powder coat. Colors and application shall be in accordance with the Manufacturer’s own specifications.
2. **Construction:** All welding and mechanical attachments shall provide rigidity to the completely assembled unit to prevent misalignment, sagging, binding of parts or other damage to cause interference with the operation of drawers and suspension, lock mechanism and other moving parts, when loaded and tested as specified herein. Any exterior welds shall be smooth, interior welds shall be finished to eliminate sharp edges or rough surfaces that might cause personal injury.
3. **Cabinet Case:** The cabinet case shall consist of front, top, sides, back and bottom. The sides, top and back of the cabinet case shall have smooth even surfaces and shall be without holes or indentions except for scored knockouts. There shall be not less than 6 interior vertical reinforcing members. One reinforcing member shall be located approximately in each corner and one centered on each side. The cabinet case shall be rigidly formed, sufficiently braced, reinforced and welded to withstand heavy usage, without warping, twisting or distortion enough to impair the operation of the drawers or cause defects which might affect serviceability of any part of the cabinet.
4. **Cabinet Case Metal Gauges:** Minimum thickness of metal components for cabinet case shall be as follows:

Top	20 Gauge	
Sides	22 Gauge	
Back	24 Gauge	
Bottom	24 Gauge	
Interior Vertical		20 Gauge
Interior Horizontal		20 Gauge

5. **Drawers:** Drawer front shall be of double wall construction at least 2” in height. The inside drawer front shall be metal. The drawer assembly shall result in a drawer that is properly aligned. The drawer front shall fit squarely into the drawer opening. Each drawer shall have a handhold with beaded or rounded grip in the rear of drawer for drawer removal.
6. **Drawer Dimensions:** Minimum inside drawer dimensions (clear net filing space with follower block in most rearward position) shall be as follows:

	Height Min. Inches	Width Min. Inches	Depth Min. Inches
Drawer Legal Size	10.25	15.25	26.26
Drawer Letter Size	10.25	12.25	26.25

Inside drawer height shall be measured form clear drawer bottom to bottom of clear drawer opening for the full width and depth of drawer. Inside depth shall be measured from the inside drawer front to front of the follower block in its most rearward position.

7. Drawer Metal Gauges: Minimum thickness of metal components of drawer shall be as follows:

Outside Front	22 Gauge
Inside Front	24 Gauge
Body and Back	26 Gauge

- 8. Drawer Suspension:** Drawer suspension system shall be of the progressive type with free rolling rollers, balls or fixed journal rollers of the ball bearing or roller bearing type, and shall travel easily, quietly and smoothly. There shall be a minimum of six main bearing rollers supporting the drawer. When only free rollers or free rolling balls are used, there shall be no less than a total of ten in supporting the drawer. Suspension members, including case channels, shall be finished following the best commercial standards for people, protection and durability. Suspension slide members shall be 16-gauge minimum with 18-gauge minimum cross members. Suspension system supporting each drawer shall assure smooth and easy operation of the drawer and withstand the test requirements specified herein.
- 9. Follower-Block:** One follower-block shall be furnished with each file drawer. The follower-block shall be the friction locking type or shall be held in place by engaging slots or formations in the drawer sides. The follower-block shall be held securely in a right-angle position to the drawer sides at any point of required travel. The follower-block shall not be movable rearward until activated by a safety device on the plate. Minimum thickness of the follower-block plate shall be 22 gauge.
- 10. Stops:** All drawers shall be provided with a stop which will prevent the drawer from hitting the back of the cabinet on the inward movement and with a positive stop which will prevent the drawer from falling out when fully extended. The stops encountered on the inward movement shall be equipped with bumpers of rubber of other comparable material. The stops shall prevent the unintentional removal of drawers but the drawers shall be easily disengage from the tops and removed from the cabinet when desired, without the need of tools.
- 11. Locking Device:** Locks shall be supplied as an option, and when requested, shall be a tumbler type or approved equivalent. The locking mechanism shall be a positive mechanical mechanism operated by a chrome plated plunger type lock. Plunge springs out when unlocked with the key and locked by pushing the plunger in until it catches. The locking mechanism shall secure all file drawers simultaneously (gang lock) and shall be so constructed that the drawers left open may be closed and positively locked after the cabinet is locked, without distorting the locking mechanism. Locks shall have not less than 150 key changes. Duplicate keys shall be furnished with each lock.
- 12. Drawer Latch:** Drawer shall have a positive acting spring latch mechanism capable of holding loaded drawer closed at any tilt angle. The latch release button shall have free movement only in the horizontal plane parallel to the drawer front. The release button shall fit snugly to the drawer front and shall be located convenient to drawer pull so that one-hand operation will simultaneously release the latch and permit the drawer to be opened.
- 13. Operation:** Drawers shall open and close smoothly and when in the closed position shall remain closed (no creeping open).

LABORATORY FURNITURE

Mandatory Minimum Requirements:

1. All products offered in response to this proposal must meet ANSI/BIFMA Testing as applicable.
2. All products shall be standard catalogue items for which printed literature, specifications, and certified test results are available.
3. All items shall be designed in a manner that allows assembly and disassembly to occur with minimal disruption, time, noise volume, and space usage.
4. All products must have an identification tag/sticker which must include the following information: manufacturer's name, model number, and year built.

Laboratory Seating: This category is for adjustable height lab stools and chairs. All products shall have foot rests and pneumatic seat height adjustments provided as standard. Products shall have a ten-year qualified guarantee on structural material and workmanship, and a 5-year qualified guarantee on upholstery material. Product shall meet all BIFMA/ANSI standards were applicable.

Science Tables: Table frames should be made of wood, stainless or power coated steel, come standard with leveling feet and have the option to upgrade to lock casters for mobility.

Microscope Tables/Work Surfaces: Basic table work surfaces should be made of Epoxy Resin, Phenolic Resin, or Chemical Resistant Laminate. Each work surface must be upgradable with Leveling Casters or Anti Vibration Feet, Lab Grade Drawers & Cabinets, Under Mount Keyboard Trays and be available in adjustable heights.

Laboratory Islands: Basic Island work surfaces should be made of Epoxy Resin, Phenolic Resin, Chemical Resistant Laminate or a Carbon Core Laminate. Each work surface must be upgradable with components for a wet lab environment, needing lab grade sinks, lab drying racks, and chemical resistant work surfaces; Mobile Lab Islands for Class Room Environments and Island built for Specific Lab Instrumentation

Stainless Steel Utility Carts: Must be stainless steel, with sound deadening panels under shelves, to restrict vibration and noise. Must have bumpers on the legs and handles to protect walls and furniture, and must be able to be cleaned and sanitized easily.

Steel Storage Carts: Must have push button locks, ball bearing drawer slides, and stainless drawer pulls, handles and hardware.

Wire Shelving: Shelves must be adjustable, must have adjustable feet to assure leveling. Must have the option of non-marking swivel casters and removable Mesh side panels.

LIBRARY AND MULTI-MEDIA DISPLAY AND STORAGE

Mandatory Minimum Requirements:

1. All products offered in response to this proposal must meet ANSI/BIFMA Testing as applicable.
2. All products shall be standard catalogue items for which printed literature, specifications, and certified test results are available.
3. All items shall be designed in a manner that allows assembly and disassembly to occur with minimal disruption, time, noise volume, and space usage.
4. All products must have an identification tag/sticker which must include the following information: manufacturer's name, model number, and year built.

ERGONOMIC FURNITURE AND ACCESSORIES

Because of the significant difference between individuals in the workforce, it is important to ensure correct design with respect to the layout and dimension of computer workstations. To decrease injury risk exposure and ultimately prevent injuries while continuing to support improvements in efficiency in an office computer workstation environment, the below specifications should be followed when bidding ergonomic computer furniture and accessories for an office computer workstation environment.

POSTURES

To maintain comfort and increase productivity, computer users should frequently change postures. Four reference postures at a computer workstation are:

- a. Upright sitting
Allows for vertical position of 90 and 105 degrees of the upper torso with thighs near horizontal and lower legs vertical
- b. Reclined sitting
Allows for a recline of the user's torso and neck to be between 105 and 120 degrees
- c. Declined sitting
Allows for the user's thigh position to be angled downward with the hips above the knees, with the upper torso vertical or slightly reclined with an angle of greater than 90 degrees between the torso and thighs
- d. Standing
Allows for the knees, hips, torso and neck to be in line vertically

Computer workstation design should allow for use of all four reference postures, allowing for users to alternate between both seated and standing postures. All furniture manufacturers should be able to provide adjustable furniture which allows for seated and standing postures that meets the below criteria.

CLEARANCES

The below criteria should be followed in workstation design to allow for adequate clearance for a user's feet and legs under the work surface.

1. For seated workstations, the below should be applied:

1. Work surface thickness should be no more than 1.5"; incorporation of drawers beneath the work surface for storage (i.e. pencil drawers, file drawers) should be properly located to avoid interference with the legs when users move around through various work surfaces.
2. Seated workstations should provide adequate clearance for feet and legs with no obstructions and should allow users to adjust through seated reference postures. Movement away from the designated computer workstation to an adjacent workstation (such as a return in an L-shaped or U-shaped workstation) to the right or left should be accounted for and all obstructions removed.
3. Clearance in work surface depth at foot level should be at least 23.5" under the work surface (front to back) to allow sufficient room for the feet and legs under the desk. Additional clearance may be needed to allow for further extension of the legs at the knee.

2. For standing only workstations, the below should be applied:

- a. Clearance under the work surface for foot height should be at least 4.5"
- b. Clearance under the work surface for foot depth should be at least 5"
- c. Width clearance under the work surface at foot level should be at least 20"

WORKING HEIGHT & WIDTH

Height of input devices should be adequately adjustable to allow for proper placement for the user. Generally, the surface height should be as follows:

1. Work surfaces should be adjustable in height and allow for a user's elbow postures of approximately 90 degrees.
 - a. When height adjustability is not feasible, the height for a fixed work surface for seated work only should be in the range of 28.5" – 31"
 - b. Work surface height for seated only workstations should be adjustable from 22" – 31"
 - c. Work surface height for standing only workstations should be adjustable from 36" – 46.5"
 - d. Work surface height allowing for both sitting and standing should be adjustable from 22" – 46.5"
3. All work surfaces should provide adequate clearance for the legs and not impact the top of the thighs (refer to the above section on clearances)
4. Sufficient space on top of the work surface should be provided to allow for multiple input devices (both keyboard and mouse, tablet, etc.), computer monitors, telephone and other equipment

The horizontal space on top of the work surface which provides adequate width for computer input devices, writing materials, etc. should be at least 40" – 45"

5. The platform or surface of an articulating arm keyboard tray should be at least 26" wide (27.6" or more is ideal) to allow for sufficient keyboard and mouse space. These platforms should be adjustable in height and range in height from 7" below the desk to 6" above the desk. Bi-level adjustable desk platforms as part of the overall desk design are sufficient if these meet the necessary specifications.

***Platforms which do not adjust to meet these specifications are unacceptable

6. The below section on work surface dimensions further specifies actual work surface dimensions to be incorporated in furniture design
7. Height adjustable work surfaces should provide visual specifications marking the adjustment for height and tilt
8. Work surface edges should be rounded (radius of at least 0.1") and have a non-reflective surface

CHAIRS

- a. Chairs should meet the below criteria and allow users to adjust from at least two of the three seated reference postures as mentioned above.
 1. Adjustable seat height
 2. Height adjustable back rest (bendable or flexible back support in response to movement may suffice)
 3. Adjustable seat pan tilt (whether adjustable by a lever, knob or by adjustments through body weight)
 4. Adjustable back rest tilt (whether adjustable by a lever, knob or by adjustments through body weight)
 5. Tension adjustment with seat lock or stop
 6. Adjustable seat depth
 7. Waterfall or rounded front edge
 8. Armrests (if provided) must provide sufficient clearance under the workstation and are not to interfere with the use of any of the four reference postures

9. Overall chairs should allow for dynamic or floating postural changes and movements to allow for adjustment between seated reference postures. Flexible seat materials which bend along with user movements are also acceptable.
- b. Chairs dimensions should meet the below criteria.
 1. Seat heights should range from 15" – 22"
 2. Seat depth should range from 15" – 21"
 3. Seat width should be at least 17.7"
 4. Seat pan tilt should be adjustable by the user in the range of at least 4 degrees
 5. Seat back angle should be adjustable from 90 – 120 degrees; angles beyond 120 degrees require a user adjustable headrest
 6. Width of the backrest should be at least 14.2"
 7. Top of the backrest height should be at least 17.7" above seat height
 8. Backrest height adjustment should be user adjustable between 6" – 10" above seat height
 9. Armrests should adjust in height and width and be detachable.
 10. Armrests should adjust from at least 6.7" to 10.6" above the seat height and width clearance of armrests should be adjustable from 13.5" to at least 18".
 11. Arm rests should pivot and/or slide to allow for both wider and narrower user shoulder breadths.

Users should be properly educated on the available chair adjustments, how they are used as well as why they are beneficial. Simply dropping off a chair user's guide is insufficient.

MONITOR

Monitor adjustment is important in accommodating each individual user's line of sight. Monitor arms are commonly used to allow easy adjustment of height, tilt, angle and distance. Monitor arms are recommended as part of overall computer workstation design to allow for proper user placement.

- Monitor adjustments or monitor arms should allow for the following adjustments when incorporated.
 1. Monitor arms to be used for sitting only workstations should be adjustable between 27.5" – 32.8". Additional adjustment may be needed for users with prescription lenses
 2. For users with normal visual capabilities, monitors should be adjustable between 15.7" – 39.4" from the user's eyes.

WORK SURFACE DIMENSIONS

Work surfaces dimensions will need to vary from one user to another and in addition, the space and dimensions within the office will also play a role in dimensions of a workstation. However, aesthetics should not compromise human factors, biomechanics or comfort. Criteria for standard workstation dimensions are listed below.

1. Overall computer work surface dimensions are recommended to be at least 24" x 48".
 - a. If a 24" depth is used, an articulating arm keyboard platform is recommended as 24" is not an adequate depth to hold all components of a computer and provide the visual distance needed
 - b. If a keyboard tray is not used, the work surface depth should be 30" where computer work is performed
2. Adjacent sections of the desk (i.e. L-shaped or U-shaped desks) should be at least 24" x 72".
 - a. If 24" x 60" is preferred due to room dimensions and limitations, storage drawers under that desk surface should be eliminated to avoid leg obstructions.