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**STATE OF NORTH CAROLINA**

**DEPARTMENT OF ADMINISTRATION,**

**DIVISION OF PURCHASE & CONTRACT**

**Furniture – All Types**

**Invitation for Bids #: DPC-926634448-BAJ**

**Date Issued: April 30, 2024**

**Bid Opening Date: June 12, 2024 @ 2:00 PM. ET.**

**Direct all inquiries concerning this IFB to:**

Bahaa Jizi

State Procurement Manager

Email: [bahaa.jizi@doa.nc.gov](mailto:bahaa.jizi@doa.nc.gov)



**STATE OF NORTH CAROLINA**

**Invitation for Bid #**

**DPC-926634448-BAJ**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

For internal state agency processing, including tabulation of bids, provide your company’s eVP (Electronic Vendor Portal) Number. Pursuant to G.S. 132-1.10(b) this identification number shall not be released to the public. **This page will be removed and shredded, or otherwise kept confidential**, before the procurement file is made available for public inspection.

**This page shall be filled out and returned with your bid.  
Failure to do so may subject your bid to rejection.**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
Vendor Name

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Vendor eVP#

**Note**: For a contract to be awarded to you, your company (you) must be a North Carolina registered vendor in good standing. You must enter the vendor number assigned through eVP. If you do not have a vendor number, register at <https://vendor.ncgov.com/vendor/login>

|  |  |
| --- | --- |
| **STATE OF NORTH CAROLINA**  **DEPARTMENT OF ADMINISTRATION – DIVISION OF PURCHSE AND CONTRACT**  **Statewide Term Contract** | |
| **Refer *ALL* Inquiries regarding this IFB to:**  **All correspondence with vendors shall be through the Ariba Sourcing Tool. Questions will be received in the Ariba Sourcing Tool (only) based on the schedule in Section 2.4.** | **Invitation for Bid #:**  **DPC-926634448-BAJ** |
| **Bids will be publicly opened:**  **June 12, 2024 @ 2:00 PM. ET.** |
| **For Statewide Use of All State Entities** | **Commodity # and Description: 561015A - Furniture** |
| **STC #: 5610A** |

**EXECUTION**In compliance with this Invitation for Bid (IFB), and subject to all the conditions herein, the undersigned Vendor offers and agrees to furnish and deliver any or all items upon which prices are bid, at the prices set opposite each item within the time specified herein.

By executing this bid, the undersigned Vendor understands that false certification is a Class I felony and certifies that:

* this bid is submitted competitively and without collusion (G.S. 143-54),
* that none of its officers, directors, or owners of an unincorporated business entity has been convicted of any violations of Chapter 78A of the General Statutes, the Securities Act of 1933, or the Securities Exchange Act of 1934 (G.S. 143-59.2), and
* it is not an ineligible Vendor as set forth in G.S. 143-59.1.

Furthermore, by executing this bid, the undersigned certifies to the best of Vendor’s knowledge and belief, that:

* it and its principals are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any Federal or State department or agency.

As required by G.S. 143-48.5, the undersigned Vendor certifies that it, and each of its sub-contractors for any Contract awarded as a result of this IFB, complies with the requirements of Article 2 of Chapter 64 of the NC General Statutes, including the requirement for each employer with more than 25 employees in North Carolina to verify the work authorization of its employees through the federal E-Verify system.

As required by Executive Order 24 (2017), the undersigned Vendor certifies will comply with all Federal and State requirements concerning fair employment and that it does not and will not discriminate, harass, or retaliate against any employee in connection with performance of any Contract arising from this solicitation.

G.S. 133-32 and Executive Order 24 (2009) prohibit the offer to, or acceptance by, any State Employee associated with the preparing plans, specifications, estimates for public Contract; or awarding or administering public Contracts; or inspecting or supervising delivery of the public Contract of any gift from anyone with a Contract with the State, or from any person seeking to do business with the State. By execution of this bid response to the IFB, the undersigned certifies, for Vendor’s entire organization and its employees or agents, that Vendor are not aware that any such gift has been offered, accepted, or promised by any employees or agents of Vendor’s organization.

By executing this bid, Vendor certifies that it has read and agreed to the **INSTRUCTION TO VENDORS** andthe **NORTH** **CAROLINA GENERAL TERMS AND CONDITIONS incorporated below**.These documents can be accessed from the Ariba Sourcing Tool.

**Failure to execute/sign bid prior to submittal may render bid invalid and it MAY BE REJECTED. Late bids cannot be accepted.**

|  |  |  |  |
| --- | --- | --- | --- |
| COMPLETE/FORMAL NAME OF VENDOR: | | | |
| STREET ADDRESS: | | P.O. BOX: | ZIP: |
| CITY & STATE & ZIP: | | TELEPHONE NUMBER: | TOLL FREE TEL. NO: |
| PRINCIPAL PLACE OF BUSINESS ADDRESS IF DIFFERENT FROM ABOVE (SEE INSTRUCTIONS TO VENDORS ITEM #21): | | | |
| PRINT NAME & TITLE OF PERSON SIGNING ON BEHALF OF VENDOR: | | FAX NUMBER: | |
| **VENDOR’S AUTHORIZED SIGNATURE**: | **DATE:** | E-MAIL: | |

**VALIDITY PERIOD**

Offer shall be valid for at least one hundred and twenty (120) days from date of bid opening, unless otherwise stated here: \_\_\_\_\_\_ days, or if extended by mutual agreement in writing of the parties. Any withdrawal of this offer shall be made in writing, effective upon receipt by the agency issuing this IFB.

**BID ACCEPTANCE**

If your bid is accepted, all provisions of this IFB, along with the written results of any negotiations, shall constitute the written agreement between the parties (“Contract”). The NORTH CAROLINA GENERAL TERMS AND CONDITIONS are incorporated herein and shall apply. Depending upon the Goods or Services being offered, other terms and conditions may apply, as mutually agreed.

**FOR STATE USE ONLY**: Offer accepted and Contract awarded on date of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ as indicated,

by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**(Authorized Representative of Department of Administration, Division of Purchase & Contract)**

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# PURPOSE AND BACKGROUND

The Department of Administration (DOA) serves as the business manager for North Carolina State government and provides leadership to State government for the effective, efficient, economical, and equitable delivery of services to the public. The department also aids and services several advocacy programs that serve diverse segments of the State’s population that have traditionally been underserved. The Division of Purchase & Contract (P&C) is the strategic force to provide the State’s entities with a catalog of Statewide Term Contracts (STC) that provide for an encompassing organized and efficient manner to pool resources to provide goods and services.

The State of North Carolina (State) through the Department of Administration (DOA) Division of Purchase and Contract (P&C) is seeking qualified vendors to establish a Statewide Term Contract to furnish and deliver a comprehensive, multiple manufacturer product line of new Furniture on an “As Needed” basis, if and when ordered by State Departments, Agencies, and Higher Education Institutions during the contract period. Vendor offerings must meet one (1) or more of the following categories:

1. **Category I: Casegoods (Desks, Credenzas, Conference Tables)**
2. **Category II: Classroom**
3. **Category III: Bookcases**
4. **Category IV: Ergonomic Chairs**
5. **Category V: Office Swivel & Side Chairs**
6. **Category VI: Computer**
7. **Category VII: Mobile & Folding**
8. **Category VIII: Upholstered Seating**
9. **Category IX: Commercial Dining**
10. **Category X: Metal Cabinets**
11. **Category XI: Cosmetology**
12. **Category XII: Office Systems, Open Plan**
13. **Category XIII: Desks, Sit-To-Stand**
14. **Category XIV: Shelving, Metal, Wood, Library**
15. **Category XV: Dormitory**
16. **Category XVI: Outdoor Furniture**
17. **Category XVII: Residential, Institutional, Library, Academic, and Molded Furniture**

In addition, accessories, attachments or optional items that that are related to and normally sold with or as a part of a product, product line or identified grouping of items in one of the above categories may be included in a bid submitted for that category as long as the related item does not fall within another listed category (e.g., an optional return attachment for a desk, an ottoman that matches the style covering of an upholstered chair or an open-bottom bookcase designed and sold only to fit atop a credenza).

North Carolina General Statute §143-57.1 (Session Law 2013-73), which sets out bidding procedures for State requirements contracts (i.e. statewide term contracts) for certain categories of furniture, was amended during the 2013 General Assembly session. To comply with the North Carolina General Statute §143-57.1 (Session Law 2013-73). The statute provides a method by which a vendor may become qualified to submit a bid on those furniture categories under Method #1. However, the State will consider products meeting ANSI/BIFMA Standards as a qualifying Method #2. The Pricing Submittal Workbook must be submitted indicating each method bid as referenced under Section 3.4 BID QUALIFICATION below.

To comply with Governor Cooper’s Executive Order 80 (October 2018), North Carolina’s Commitment to Address Climate Change and Transition to a Clean Energy Economy, the contract resulting from this solicitation intends to provide sustainability features per industry standards.

The intent of this Invitation for Bids “IFB” is to receive pricing from qualified Vendors that will offer savings to the State and to confirm, through Vendors’ submission of bids, an ability to meet the State’s needs.

The Contract resulting from this IFB is mandatory for State Departments, most State Agencies, and State Higher Education Institutions (except under the conditions specified in G.S. 115D-58.14(a) and G.S. 116-13). The Contract may also be utilized, without further competition, by non-mandatory State Agencies and Other Authorized Entities.

Bids shall be submitted in accordance with the terms and conditions and specifications of this IFB and any addenda issued hereto.

The intent of this solicitation is to award a Statewide Term Contract.

* 1. CONTRACT TERM

The Contract shall have a term of three (3) years beginning on the date of final Contract execution (the “Effective Date”) with the option to renew for two (2) additional two-year terms. In addition, the State reserves the right to extend a contract term after the last active term.

Bids shall be submitted in accordance with the terms and conditions of this IFB and any addenda issued hereto.

* 1. ESTIMATED SPEND

Based on historical data, the State has purchased approximately $232 million of furniture during FY 2018-2023 under the previous contract. This amount is not guaranteed and could be more or less than the historical expenditure during the contract period. No maximum or minimum quantities are guaranteed.

# GENERAL INFORMATION

* 1. INVITATION FOR BID DOCUMENT

The IFB is comprised of the base IFB document, any attachments, and any addenda released before Contract award, which are incorporated herein by reference.

2.2 E-PROCUREMENT FEE

**ATTENTION: This is an NC eProcurement solicitation facilitated by the Ariba Network. The E-Procurement fee may apply to this solicitation. See paragraph entitled ELECTRONIC PROCUREMENT of the North Carolina General Terms and Conditions.**

General information on the E-Procurement Services can be found at: <http://eprocurement.nc.gov/>.

**What is the Ariba Network?**

The Ariba Network is a web-based platform that serves as a connection point for buyers and vendors. Vendors can log in to the Ariba Network to view purchase orders, respond to electronic requests for quotes, participate in Sourcing Events, and collaborate with buyers on contract documents.

For training on how to use the Sourcing Tool to view solicitations, submit questions, develop responses, upload documents, and submit offers to the State, Vendors should go to the following site:

http://eprocurement.nc.gov/training/vendor-training.

## 2.3 NOTICE TO VENDORS REGARDING IFB TERMS AND CONDITIONS

It shall be the Vendor’s responsibility to read the Instructions to Vendors, the North Carolina General Terms and Conditions, all relevant exhibits and attachments, and any other components made a part of this IFB and comply with all requirements and specifications herein. Vendors also are responsible for obtaining and complying with all Addenda and other changes that may be issued in connection with this IFB.

If Vendors have questions, or issues regarding any component within this IFB, those must be submitted as questions in accordance with the instructions in the BID QUESTIONS Section. If the State determines that any changes will be made as a result of the questions asked, then such decisions will be communicated in the form of an IFB addendum. The State may also elect to leave open the possibility for later negotiation and amendment of specific provisions of the Contract that have been addressed during the question-and-answer period.

Other than through the process of negotiations under 01 NCAC 05B.0503, the State rejects and will not be required to evaluate or consider any additional or modified terms and conditions submitted with Vendor’s bid. This applies to any language appearing in or attached to the document as part of the Vendor’s bid that purports to vary any terms and conditions or Vendors’ instructions herein or to render the bid non-binding or subject to further negotiation. Vendor’s bid shall constitute a firm offer that shall be held open for the period required herein (“Validity Period” above).

The State may exercise its discretion to consider Vendor proposed modifications. By execution and delivery of this IFB Response, the Vendor agrees that any additional or modified terms and conditions, whether submitted purposely or inadvertently, shall have no force or effect, and will be disregarded unless expressly agreed to during negotiations and incorporated by way of a Best and Final Offer (BAFO). Noncompliance with, or any attempt to alter or delete, this paragraph shall constitute sufficient grounds to reject Vendor’s bid as nonresponsive.

## 2.4 IFB SCHEDULE

The table below shows the *intended* schedule for this IFB. The State will make every effort to adhere to this schedule.

|  |  |  |
| --- | --- | --- |
| **Event** | **Responsibility** | **Date and Time** |
| Issue IFB | State | **April 30, 2024** |
| Hold Urged and Cautioned Pre-Bid Conference | State | **May 10, 2024 @ 10:00 AM EST.**  Microsoft Teams meeting  **Join on your computer, mobile app or room device**  Meeting ID: 271 066 286 803  Passcode: 3gxAwT  **Dial-in by phone**  [+1 984-204-1487,,806032350#](tel:+19842041487,,806032350) United States, Raleigh  [Find a local number](https://dialin.teams.microsoft.com/c102d528-0544-4660-b869-294e85047e28?id=806032350)  Phone conference ID: 806 032 350#  **Join on a video conferencing device**  Tenant key: [ncgov@m.webex.com](mailto:ncgov@m.webex.com)  Video ID: 118 736 642 7  [More info](https://www.webex.com/msteams?confid=1187366427&tenantkey=ncgov&domain=m.webex.com) |
| Submit Written Questions | Vendor | **May 20, 2024 @10:00 AM EST** |
| Provide Responses to Questions | State | **May 27, 2024** |
| Submit Bids | Vendor | **June 12, 2024 @ 2:00 PM EST.**  Microsoft Teams meeting  **Join on your computer, mobile app or room device.**  Meeting ID: 267 915 304 045  Passcode: UXNXKK  **Dial-in by phone**  [+1 984-204-1487,,134154195#](tel:+19842041487,,134154195) United States, Raleigh  [Find a local number](https://dialin.teams.microsoft.com/c102d528-0544-4660-b869-294e85047e28?id=134154195)  Phone conference ID: 134 154 195#  **Join on a video conferencing device**  Tenant key: [ncgov@m.webex.com](mailto:ncgov@m.webex.com)  Video ID: 119 879 599 0  [More info](https://www.webex.com/msteams?confid=1198795990&tenantkey=ncgov&domain=m.webex.com) |
| Intended Contract Award | State | TBD |

## 2.5 URGED AND CAUTION PRE-BID CONFERENCE

Date: **May 10, 2024**

Time: **10:00 AM Eastern Time**

Location: VIRTUAL LINK (See IFB Schedule above)

Contact: [bahaa.jizi@doa.nc.gov](mailto:bahaa.jizi@doa.nc.gov)

Contact #: 984-236-0218

**Instructions**: Vendor representatives are URGED and CAUTIONED to attend the pre-bid conference and apprise themselves of the conditions and requirements which will affect the performance of the work called for by this IFB. A non-mandatory pre-bid conference is scheduled for this IFB. Submission of a bid shall constitute sufficient evidence of Vendor’s compliance and no allowance will be made for unreported conditions which a prudent Vendor would recognize as affecting the performance of the work called for in this IFB.

Vendor is cautioned that any information released to attendees during the pre-bid conference, other than that involving the physical aspects of the facility referenced above, and which conflicts with, supersedes, or adds to requirements in this IFB, must be confirmed by written addendum before it can be considered as a part of this IFB and any resulting contract.

## BID QUESTIONS

Upon review of the IFB documents, Vendors may have questions to clarify or interpret the IFB in order to submit the best bid possible. To accommodate the Bid Questions process, Vendors shall submit any such questions by the “Submit Written Questions” date and time provided in the IFB SCHEDULE Section above, unless modified by Addendum.

Questions related to the content of the solicitation, or the procurement process should be directed to the person on the title page of this document via the Sourcing Tool's message board by the date and time specified in the IFB SCHEDULE Section of this IFB. Vendors will enter “**IFB # DPC-926634448-BAJ – Questions**” as the subject of the message. Question submittals should include a reference to the applicable IFB section. This is the only manner in which questions will be received.

Questions or issues related to using the Sourcing Tool itself can be directed to the North Carolina eProcurement Help Desk at 888-211-7440, Option 2. Help Desk representatives are available Monday through Friday from 7:30 AM ET to 5:00 PM EST.

Questions received prior to the submission deadline date, the State’s response, and any additional terms deemed necessary by the State will be posted in the Sourcing Tool in the form of an addendum and shall become an Addendum to this IFB. No information, instruction or advice provided orally or informally by any State personnel, whether made in response to a question or otherwise in connection with this IFB, shall be considered authoritative or binding. Vendors shall rely *only* on written material contained in an Addendum to this IFB.

2.7 BID SUBMITTAL

**IMPORTANT NOTE:** **This is an absolute requirement.** Late bids, regardless of cause, will not be opened or considered, and will be automatically disqualified from further consideration. Vendor shall bear the sole risk of late submission due to unintended or unanticipated delay. It is the Vendor’s sole responsibility to ensure its bid has been received as described in this IFB by the specified time and date of opening. Failure to submit a bid in strict accordance with instructions provided shall constitute sufficient cause to reject a Vendor’s bid(s). Solicitation responses are subject to Sealed Bidding requirements.

Vendor’s bids for this procurement must be submitted through the Sourcing Tool. For training on how to use the Sourcing Tool to view solicitations, submit questions, develop responses, upload documents, and submit offers to the State, Vendors should go to the following site: <https://eprocurement.nc.gov/training/vendor-training>.

Questions or issues related to using the Sourcing Tool itself can be directed to the North Carolina eProcurement Help Desk at 888-211-7440, Option 2. Help Desk representatives are available Monday through Friday from 7:30 AM EST to 5:00 PM EST.

Tips for Using the Sourcing Tool

1. Vendors should review available training and confirm that they are able to access the Sourcing Event, enter responses, and upload files well in advance of the date and time response are due to allow sufficient time to seek assistance from the North Carolina eProcurement Help Desk.
2. Vendors may submit their responses early to make sure there are no issues, and then submit a revised response any time prior to the response due date and time. The State will only review the most recent response.
3. Vendors should respond to all relevant sections of the Sourcing Event. Certain questions or items are required in order to submit a response and are denoted with an asterisk. The Sourcing Tool will not allow a response to be submitted unless all required items are completed. The Sourcing Tool will provide error messages to help identify any required information that is missing when response is submitted.
4. Simply saving your response in the Sourcing Tool is not the same as submitting your response to the State. Vendors should make sure they complete the submission process and receive a message that their response was successfully submitted.
5. **Only Bids submitted through the Content Section of the Ariba Sourcing Event will be considered. Bids submitted through the Message Board will not be accepted or considered for award.**

## 2.8 BID CONTENTS

Vendors shall provide responses to all questions and complete all attachments for this IFB that require the Vendor to provide information and upload them to the Sourcing Event in the Sourcing Tool. Vendor may not be able to submit its response in the Sourcing Tool unless all required items are addressed. Vendors shall provide authorized signatures where requested. Failure to provide all required items, or Vendor’s submission of incomplete items, may result in the State rejecting Vendor’s bid, in the State’s sole discretion.

Vendors shall upload the following items and attachments in the Sourcing Tool:

1. Cover Letter, must include the following: (i) a statement that confirms that the Vendor has read the IFB in its entirety, including all links, and all Addenda released in conjunction with the IFB; (ii) a statement that Vendor agrees to perform in accordance with the scope of work, requirements, and specifications contained herein; and (iii) Vendor’s agreement to comply with all instructions, terms and conditions, and attachments.
2. Title Page: Include the company name, address, phone number and authorized representative along with the Bid Number.
3. Completed and signed version of EXECUTION PAGES, along with the body of the IFB.
4. Signed receipt pages of any addenda released in conjunction with this IFB, if required to be returned.
5. Vendor Response including Sections 3.4 BID QUALIFICATIONS 4.12 AUTHORIZED RESELLER, 4.13, WARRANTY, 4.14 DESCRIPTIVE LITERATURE, 4.19 SUSTAINABILITY EFFORTS,4.26 Secretary of State Registration, 6.1 ELECTRONIC PRODUCT CATALOG
6. Completed version of ATTACHMENT A: PRICING SUBMITTAL WORKBOOK
7. Completed and signed version of ATTACHMENT D: HUB SUPPLEMENTAL VENDOR INFORMATION
8. Completed and signed version of ATTACHMENT E: CUSTOMER REFERENCE FORM
9. Completed and signed version of ATTACHMENT F: LOCATION OF WORKERS UTILIZED BY VENDOR
10. Completed and signed version of ATTACHMENT G: CERTIFICATION OF FINANCIAL CONDITION
11. Completed version of ATTACHMENT H: North Carolina General Statutes 143-57.1 - Furniture requirements contracts (as amended by Session Law 2013-73)
12. ATTACHMENT J: SPECIFICATIONS FOR FURNITURE
13. ATTACHMENT K: DEALER INFORMATION
14. Completed and signed version of CERTIFICATION FOR CONTRACTS, GRANTS, LOANS, AND COOPERATIVE AGREEMENTS and OMB STANDARD FORM LLL

## 2.9 ALTERNATE BIDS

Unless provided otherwise in this IFB, Vendor may submit alternate bids for comparable Goods, various methods or levels of Service(s), or that propose different options. Alternate bids must specifically identify the IFB requirements and advantage(s) addressed by the alternate bid. Each bid must be for a specific set of Goods and must include specific pricing. Each bid must be complete and independent of other bids offered. If a Vendor chooses to respond with various offerings, Vendor shall follow the specific instructions for uploading Alternate Bids in the Sourcing Tool.

## 2.10 DEFINITIONS, ACRONYMS, AND ABBREVIATIONS

Relevant definitions for this IFB are provided in 01 NCAC 05A .0112 and in the Instructions to Vendors found Sourcing Tool, which are incorporated herein by this reference.

The following definitions, acronyms, and abbreviations are also relevant to this IFB:

1. **ANSI/BIFMA**: American National Standards Institute/Business & Institutional Furniture Manufacturer’s Association.
2. **BOA**: Basis of Award.
3. **Furniture Requirements Contract:** State requirements contracts for casegoods, classroom furniture, bookcases, ergonomic chairs, office swivel and side chairs, computer furniture, mobile and folding furniture, upholstered seating, commercial dining tables, and related items.
4. **GSA**: General Services Administration

# METHOD OF AWARD AND BID EVALUATION PROCESS

## 3.1 METHOD OF AWARD

North Carolina G.S. 143-52 provides a general list of criteria the State shall use to award contracts, as supplemented by the additional criteria herein. The Goods or Services being procured shall dictate the application and order of criteria; however, all award decisions shall be in the State’s best interest.

**Percentage Off Manufacturer Suggested Retail Price (MSRP)**

All responsive bids will be reviewed, evaluated and award or awards made in each category and under each method (#1 & #2) will be based on the responsive bids(s) offering the lowest price that provides the estimated requirements as to breadth of lines, highest % discount offered off MSRP List, quantity, quality, delivery, service, and/or geographical coverage, to include any required verifications set out herein such as but not limited to past performance, references, and financial documents. Products offered must currently be available in the manufacturer’s published MSRP. **Submission of price schedules developed specifically for this Bid WILL result in disqualification from award consideration.**

It is the State’s intent to have multiple manufacturers represented in each category. In the event that two (2) or more Vendors offer the same manufacturer’s product(s), it is the intent of the State to make an award to the Vendor with the most complete offering per category, and highest percentage discount offered off MSRP List for a particular manufacturer’s product(s).

While the intent of this IFB is to award a Contract(s) for all categories, the State reserves the right to make separate awards to one or more categories, to not award one or more categories or to cancel this IFB in its entirety without awarding a Contract, if it is considered to be most advantageous to the State to do so.

The State reserves the right to waive any minor informality or technicality in bids received.

3.2 CONFIDENTIALITY AND PROHIBITED COMMUNICATIONS DURING EVALUATION

While this IFB is under evaluation, the responding Vendor, including any subcontractors and suppliers, is prohibited from engaging in conversations intended to influence the outcome of the evaluation. See the Paragraph of the Instructions To Vendors entitled COMMUNICATIONS BY VENDORS.

Each Vendor submitting a bid to this IFB, including its employees, agents, subcontractors, suppliers, subsidiaries and affiliates, is prohibited from having any communications with any person inside or outside the using agency; issuing agency; other government agency office or body (including the purchaser named above, any department secretary, agency head, members of the General Assembly and Governor’s office); or private entity, if the communication refers to the content of Vendor’s proposal or qualifications, the content of another Vendor’s proposal, another Vendor’s qualifications or ability to perform a resulting contract, and/or the transmittal of any other communication of information that could be reasonably considered to have the effect of directly or indirectly influencing the evaluation of proposals, the award of a contract, or both.

Any Vendor not in compliance with this provision shall be disqualified from evaluation and award. A Vendor’s proposal may be disqualified if its subcontractor and/or supplier engage in any of the foregoing communications during the time that the procurement is active (*i.e.*, the issuance date of the procurement until the date of contract award or cancellation of the procurement). Only those discussions, communications or transmittals of information authorized or initiated by the issuing agency for this IFB or inquiries directed to the purchaser named in this IFB regarding requirements of the IFB (prior to proposal submission) or the status of the award (after submission) are excepted from this provision.

## 3.3 BID EVALUATION PROCESS

Only responsive submissions will be evaluated.

**The State will conduct an evaluation of responsive Bids, as follows:**

Bids will be received according to the method stated in the Bid Submittal section above.

All bids must be received by the issuing agency not later than the date and time specified in the IFB SCHEDULE Section above, unless modified by Addendum. Vendors are cautioned that this is a request for offers, not an offer or request to contract, and the State reserves the unqualified right to reject any and all offers at any time if such rejection is deemed to be in the best interest of the State.

At the date and time provided in the IFB SCHEDULE Section above, unless modified by Addendum, the bids from each responding Vendor will be opened publicly and all offers (except those that have been previously withdrawn, or voided bids) will be tabulated. The tabulation shall be made public at the time it is created. When negotiations after receipt of bids is authorized pursuant to G.S. 143-49 and 01 NCAC 05B.0503, only the names of offerors and the Goods and Services offered shall be tabulated at the time of opening. Cost and price shall become available for public inspection at the time of the award. Interested parties are cautioned that these costs and their components are subject to further evaluation for completeness and correctness and therefore may not be an exact indicator of a Vendor’s pricing position.

At their option, the evaluators may request oral presentations or discussions with any or all Vendors for clarification or to amplify the materials presented in any part of the bid. Vendors are cautioned, however, that the evaluators are not required to request presentations or other clarification—and often do not. Therefore, all bids should be complete and reflect the most favorable terms available from the Vendor. Prices of bid cannot be altered or modified as part of a clarification.

Bids will generally be evaluated, based on completeness, content, cost, and responsibility of the Vendor to supply the requested Goods and Services. Specific evaluation criteria are listed in Section 3.1 METHOD OF AWARD.

Upon completion of the evaluation process, the State will make Award(s) based on the evaluation and post the award(s) to ***the electronic Vendor Portal (eVP),*** [***https://evp.nc.gov***](https://evp.nc.gov)***,*** under the IFB number for this solicitation. Award of a contract to one Vendor does not mean that the other bids lacked merit, but that, all factors considered, the selected bid was deemed most advantageous and represented the best value to the State.

The State reserves the right to negotiate with one or more Vendors, or to reject all original offers and negotiate with one or more sources of supply that may be capable of satisfying the requirement, and in either case to require Vendor to submit a Best and Final Offer (BAFO) based on discussions and negotiations with the State.

## BID QUALIFICATIONS

North Carolina General Statute 143-57.1 provides for two (2) methods by which a Vendor may become qualified to receive an award. North Carolina General Statute 143-57.1 (Session Law 2013-73), which sets out bidding procedures for State requirements contracts (i.e. statewide term contracts) for certain categories of furniture, was amended during the 2013 General Assembly session. A full text copy of the amended statute is referenced in this solicitation as **Section 5.5, North Carolina General Statutes 143-57.1- Furniture requirements contracts (as amended by Session Law 2013-73).** In summary, this statute provides two (2) separate methods by which a Vendor may become qualified to submit a bid on furniture categories in the following methods:

**METHOD #1:**

The Vendor must be a North Carolina resident (i.e., its headquarters, the locations from which the business is controlled or managed, is in North Carolina) or the products being bid are manufactured or produced in North Carolina, and the product(s) being bid are included on a United States General Services Administration (GSA) Furniture Schedule. The vendor shall include evidence of their federal qualification under the General Services Administration (GSA) Furniture Schedule (Schedule 71) with their bid. Failure to furnish this documentation will lead to the disqualification of the bid from further consideration for the award.

**\*\*\* Any certifications referenced must be submitted with each category bid. \*\*\***

**3.4.1** **QUALIFICATION by listing in the Relevant Federal GSA Furniture Schedule (Method #1)**

In order to be considered a Vendor qualified to receive an award under method #1 (GSA), a Vendor must meet the following requirements:

* 1. Vendor's product is available for purchase on a schedule within the Federal General Services Administration (GSA) Furniture Schedule (Schedule 71).
  2. Vendor is a federally qualified vendor within such schedule at the time its bid is submitted under this IFB and remains a federally qualified vendor during the term of any contract awarded as a result of this IFB. Failure to remain a federally qualified vendor within a Schedule containing the product(s) for which Vendor is awarded a contract as a result of this IFB shall constitute grounds for immediate removal of the product(s) from the State’s requirements contract for furniture. The vendor shall notify the Contract Manager immediately if they are no longer a federally qualified vendor under the GSA Schedule.
  3. Vendor’s bid is for the product(s) with identical specifications as the Vendor's product(s) included on the GSA schedule, and the price bid for such product(s) is at least as favorable as is listed on the GSA schedule.
  4. The Vendor (1) has paid unemployment taxes or income taxes in North Carolina and whose principal place of business (i.e., the headquarters from which the business of the Vendor is directed or managed) is located in this State, or (2) the product(s) bid by the Vendor are manufactured or produced in North Carolina. Unless demonstrably incorrect, information available on the North Carolina Secretary of State’s business entity database will be used to determine Vendor’s principal place of business.

Each product for which a bid is submitted under this GSA method shall be identical to a product available under GSA Schedule 71 – Furniture and Furnishings, originating from the same manufacturer and of the identical brand. In order to demonstrate that the exact product bid is available on the relevant GSA schedule, a Vendor bidding under method #1 shall submit its GSA Authorized Federal Supply Schedule Price list, highlighting in that pricelist each item bid in response to this IFB. If the State is unable to confirm that an item bid is included in the GSA pricelist or is unable to determine if the item bid is identical to the item in the pricelist, Vendor’s bid for that item shall be rejected. The entire risk of failure to adequately identify an item bid as the same as the item in the GSA pricelist shall rest with the Vendor.

In order to submit a qualified bid under Method #1 (GSA), a Vendor shall submit with its bid sufficient documentation demonstrating that it is qualified under G.S. 143-57.1 (a1) for the category(ies) being bid.

If Vendor submits a bid under the GSA method on the basis that the product bid is manufactured or produced in North Carolina, Vendor must provide the address and a contact name and telephone number for the location at which the manufacture or production occurs.

**Vendor must provide proof as a GSA federally qualified vendor under Section 6.15 in the Ariba Sourcing Too.**

**3.4.1.1 STATEMENT Regarding GSA’s “Most Favored Customer” Pricing**

The structure of the GSA “most favored customer” pricing does not prohibit or restrict Vendors from offering more advantageous pricing to State governments. The federal government’s “most favored customer” requirement merely provides that a Vendor must offer GSA the same discount structure in certain cases.

When a Vendor seeks to contract with GSA for selling products on a multi-vendor GSA schedule, GSA requests the Vendor to provide its discount pricing structure for some of its best customer or customer categories. Based on this document, GSA and the Vendor then negotiate the identity of a customer or customer category who will be the contract’s BOA.

It is this BOA customer or customer category that establishes the baseline for prices offered to GSA. The Vendor agrees that the relationship of its prices offered to GSA will always remain the same or better as the prices offered to its BOA customer. The Vendor also agrees that if its BOA customer is ever offered better prices that degrade the relationship between the BOA price and the GSA price, then it will offer the same discount to GSA for the same period of time. Thus, a GSA contract does not prohibit offering a lower price to any other customer—it simply provides that if that customer is the Vendor’s BOA customer, then the GSA will receive the same discount.

As a result, unless a Vendor has designated the State of North Carolina, or a customer class that includes North Carolina, as its BOA customer, the Vendor is free to offer a lower price to the State without any consequences to its GSA contract. Further, if North Carolina is a Vendor’s BOA customer, the Vendor can still offer a better price to North Carolina—it simply is contractually obligated to offer that same price to GSA.

Moreover, the GSA contract does not prohibit a Vendor from negotiating different—or even more favorable—terms and conditions than those in its GSA contract. The GSA contract requires most-favored-customer treatment only concerning those terms and conditions identified as part of the BOA customer pricing structure, on which the GSA contract is based.

Considerations that may be relevant to decide whether and how its bid might affect its GSA pricing include:  
1) the terms and condition on which the contract is based are similar to the terms and conditions in this IFB; 2) GSA purchases may be made through Authorized Dealers, 3) transportation charges for GSA deliveries are likely to be greater than delivery charges to North Carolina customers and 4) the most favored customer clause applies additional sales to State Buying Entity s would justify a lower price for GSA purchases. Each Vendor bidding under the GSA method in this IFB, therefore, should consider the conditions of its GSA contract carefully, and, in particular, it should identify its BOA customer to determine whether the pricing it offers in its bid for this IFB will even alter the pricing it offers to the GSA.

**3.4.2 QUALIFICATION by ANSI/BIFMA Standards (METHOD #2)**

ANSI/BIFMA Standards will be used as an additional method to qualify products bid in response to this IFB. Thus, any product or product line bid that meets ANSI/BIFMA Standards and otherwise complies with the additional requirements and specifications of the IFB will be considered for the award.

**In order to submit a qualified bid under Method #2 (ANSI/BIFMA), a Vendor shall submit with its bid sufficient documentation demonstrating that it is ANSI/BIFMA certified for the category(ies) being bid.**

By executing and submitting a bid under either method or all methods, Vendor certifies that each product bid meets, and shall meet for the full term of any contract Vendor is awarded as a result of its bid, all requirements for qualification according to the method under which the product is bid. Please select which method the response is in compliance with:

**Submission for Method #1** (GSA Schedule and North Carolina Resident)

Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Contact Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Contact Phone: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

GSA Authorized Federal Supply Schedule Price List (Highlighting Items) Attached  **Yes  No**

**Submission for Method #2** (ANSI/BIFMA Standards)

Documentation attached for Certification  **Yes  No**

## PERFORMANCE OUTSIDE THE UNITED STATES

Vendor shall complete **ATTACHMENT F: LOCATION OF WORKERS UTILIZED BY VENDOR**. In addition to any other evaluation criteria identified in this IFB, the State may also consider, for purposes of evaluating proposed or actual contract performance outside of the United States, how that performance may affect the following factors to ensure that any award will be in the best interest of the State:

1. Total cost to the State
2. Level of quality provided by the Vendor
3. Process and performance capability across multiple jurisdictions
4. Protection of the State’s information and intellectual property
5. Availability of pertinent skills
6. Ability to understand the State’s business requirements and internal operational culture
7. Particular risk factors such as the security of the State’s information technology
8. Relations with citizens and employees
9. Contract enforcement jurisdictional issues

## INTERPRETATION OF TERMS AND PHRASES

This IFB serves two functions: (1) to advise potential Vendors of the parameters of the solution being sought by the State; and (2) to provide (together with other specified documents) the terms of the contract resulting from this procurement. The use of phrases such as “shall,” “must,” and “requirements” are intended to create enforceable contract conditions. In determining whether bids should be evaluated or rejected, the State will take into consideration the degree to which Vendors have proposed or failed to propose solutions that will satisfy the State’s needs as described in the IFB. Except as specifically stated in the IFB, no one requirement shall automatically disqualify a Vendor from consideration. However, failure to comply with any single requirement may result in the State exercising its discretion to reject a bid in its entirety.

# REQUIREMENTS

This Section lists the requirements related to this IFB. By submitting a bid, the Vendor agrees to meet all stated requirements in this Section, as well as any other specifications, requirements, and terms and conditions stated in this IFB. If a Vendor is unclear about a requirement or specification or believes a change in a requirement would allow for the State to receive a better bid, the Vendor is encouraged to submit these items in the form of a question during the question and answer period in accordance with the Bid Questions Section above.

* 1. PRICING

Bid price shall include all applicable charges for delivery fully assembled and ready for use. Prices shall be expressed as a discount from the manufacturer’s published retail price List (MSRP) for each product, product line or multiple products or product lines offered within a particular category and listed on a separate ATTACHMENT A: PRICING SUBMITTAL WORKBOOK. Volume or tier discounts, if offered, shall also be based on the published retail price list. All discounts offered shall remain in effect for the entire contract period and cannot be decreased. However, the discount may be increased, and any such increase shall remain in effect for the remainder of the contract period and any subsequent extensions.

Vendors are reminded that pricing shall be provided for the requested items only, all additional charges such as installation, maintenance and training shall be priced separately and quoted to the Buying Entity prior to the services being provided. The items which include additional charges shall be indicated on the Vendor’s catalog to make the Buying Entity aware of its presence at the time of the order. In addition, when additional charges such as installation, maintenance, and training are appropriate to an item being ordered, the Buying Entity shall be informed and made aware of the additional charges at the time the order is placed and shall approve all such changes.

Volume or tier discounts, if offered, shall apply to purchase orders placed for delivery to the same location. Vendors may also provide volume or tier discounts to orders that include multiple delivery points from the same agency. Vendor shall not include or add surcharges or handling, administrative or other similar fees not specifically provided for in this IFB.

The Vendor will demonstrate reasonableness of price by offering the Percentage Discount to North Carolina that is the same or better than provided in a current contract to similarly situated governmental entities (i.e. other State contracts, GSA, NASPO ValuePoint, Veteran’s Administration, Department of Defense or other governmental entities). If the Vendor is unable to offer the Percentage Discount to NC that is the same or better than given to other similarly situated governmental entities, Vendor shall include with the response a brief explanation as to why they are unable to do so. The State reserves the right to request further information such as copies of other governmental contracts, to determine the reasonableness of the price offered.

* 1. ADDITIONAL SAVINGS OFFERS/REBATES

This component of the Pricing Response is optional, but the State encourages Vendors to provide additional financial incentives/rebates, if possible, within the scope of this IFB, that will benefit the State. These additional incentives could include, but are not limited to additional discounts based on total spend volumes, tier pricing, rebates, additional discounts offered by the vendor. Additional Discount Offers shall be in addition to the discounts Vendor offers as a Discount Off MSRP List Price. Additional Discount Offers should be provided in Attachment A: Pricing Submittal Workbook.

**Additional Discounts**: As part of the pricing submittal, Vendors are being requested to propose an additional percentage discount which would be applied to all orders for the remainder of the contract term if and when the total orders against the contract exceed the provided amount, at any point during the life of the contract. Orders from all entities utilizing this contract will count toward the contract volume discount threshold.

**Rebates**: If a rebate is offered, it will be based on reported sales, on a quarterly basis (see Section 6.4 PERIODIC QUARTERLY SALES REPORTS. The Vendor shall submit the rebate amount due by check with the “Contracts Number," “Report Amount,” and “Report Period” on either the check stub or other remittance materials. The payment shall be made by check as described herein.

Checks shall be payable to: NC Division of Purchase and Contract

Checks shall be mailed to:

**DOA/Division of Purchase and Contract**

**1301 Mail Service Center**

**325 N. Salisbury Street**

**Raleigh, NC 27603**

All discounts in Vendor’s bid shall remain in effect for the entire contract period and shall not be decreased. However, the discount may be increased, and any such increase shall remain in effect for the remainder of the contract period and any subsequent extensions. Volume or tier discounts, if offered, shall apply to purchase orders placed for delivery to the same location. Vendors may provide volume or tier discounts to orders that include multiple delivery points from the same agency.

The State reserves the right to accept or reject all or part of the proposed Additional Discount Offers as part of a Vendor’s Total Price Submittal Value. The State has sole discretion to not assign value to Vendor’s proposed Additional Discount Offers which the State cannot quantify or to give only partial value for Additional Discount Offers. Vendors may offer the State additional discounts using the Additional Discount Offers within ATTACHMENT A-PRICING SUBMITTAL WORKBOOK.

* 1. PRODUCT IDENTIFICATION

**SUITABILITY FOR INTENDED USE**

Vendors are requested to offer only items directly complying with the specifications herein or comparable items which will provide the equivalent capabilities, features and diversity called for herein. The State reserves the right to evaluate all bids for suitability for the required use and to award the one best meeting requirements and considered to be in the State’s best interest.

* 1. TRANSPORTATION AND IDENTIFICATION

The Vendor shall deliver Free-On-Board (FOB) Destination to all 100 North Carolina Counties with all transportation costs and fees included in the total bid price.

When an order is placed using a purchase order, the purchase order number shall be shown on all packages and shipping manifests to ensure proper identification and payment of invoices. If an order is placed without using a purchase order, such as via phone, the Buyer’s name shall be show on all packages. A complete packing list shall accompany each shipment. Vendors shall not ship any products until they have received an order.

* 1. STANDARD DELIVERY

Vendors shall be required to deliver furniture anywhere within the State of North Carolina’s 100 counties, as designated by the Buying Entity on the Purchase Order.

Successful Vendor(s) shall complete delivery as indicated on ATTACHMENT A-PRICING SUBMITTAL WORKBOOK. All orders shall be delivered to the location specified by the Buying Entity in the Purchase Order. The Awarded Vendor shall notify the Buying Entity at least two (2) business days in advance of a delivery to allow for the availability of entity personnel to receive the furniture if the entity so requires on its Purchase Order.

The following provisions for delivery time shall apply:

1. All deliveries of furniture ordered under the term contract resulting from this solicitation shall consist of a Standard Delivery, , unless otherwise specified in the Purchase Order. The specified location may include a loading dock or area inside a building. Standard Delivery shall be made to the location specified by the Buying Entity in the Purchase Order and ready for use. Inside means any location within a State Entity's occupied building. Ready for use means the furniture is unpacked, assembled, inspected and free of patent defects or damage. Vendor must anticipate and make necessary arrangements for access to the delivery location considering presence and availability of elevators, steps, parking and hours of operation. Vendor shall be responsible for the removal and disposal of all packaging materials, and any other debris resulting from the standard delivery of goods, from the Buying Entity ’s location. Use of State’s owned dumpsters is not allowed. Failure to deliver within the Buying Entity’s agreed upon time period may result default of the contract.
2. Vendor shall provide written acknowledgement of orders within two (2) business days after Receipt of Order.
3. Vendor shall provide the Buying Entity with anticipated shipping date of furniture upon receipt of Purchase Order. If the anticipated shipping date cannot be provided by the Vendor at the time of the acknowledgement of order, then the Vendor shall provide the Buying Entity with a reasonable explanation for not providing a date and shall provide the anticipated delivery date at the time it becomes known to the Vendor.
4. Unless otherwise agreed-upon by the Buying Entity, the Vendor shall furnish the Buying Entity with written acknowledgement of the delivery date to the Buying Entity at least fourteen (14) calendar days prior to shipment.

If delivery will not be made within the delivery time, the Vendor is required to notify the Buying Entity in writing within one (1) business day of when Vendor knows the delivery shall not be made within the delivery time. This notification must include the reasons for the delay and the latest date the order shall be delivered. Should the delay not be acceptable to the Buying Entity, the Buying Entity may file a Vendor Complaint Form.

1. All correspondence on delivery time shall be directed to the ordering Buying Entity 's contact person.
   1. INSTALLATION AND SET-UP

Installation of items requiring custom or complex fitting or assembly efforts due to the nature of the item (such as an executive desk with attached return and credenza, or a library shelving system) may be billed under the following conditions: the amount of the installation charge is identified in Vendor’s catalog in conjunction with the relevant item, the Buying Entity is provided an option to affirmatively accept or decline installation services at the time of ordering, and any approved charge is listed as a separate line item on the purchase order and invoice.

Acceptance and approval of charges for installation of such items shall be at the sole discretion of the Buying Entity. Any resulting damage to the item or to other State property during the installation by the Vendor shall be repaired at the Vendor's sole expense. General set-up activities needed to make an item ready for use (such as insertion of adjustable shelves into a bookcase or placing a desk chair onto its pedestal) shall not be considered installation and shall be included in the contract price.

All installation cost shall be listed as a separate line item on the Purchase Order and invoice.

In the event the delivery is not received within the contract delivery period, the Vendor may be held in default in accordance with ATTACHMENT C, Section 1: DEFAULT AND PERFORMANCE BOND, in the North Carolina General Contract Terms and Conditions.

* 1. OTHER SERVICES

Any additional services, including design services, offered by Vendor shall be accepted or approved at the sole discretion of the Buying Entity after negotiation and agreement on any applicable fee. All service fees shall be listed as a separate line item on the purchase order and invoice.

* 1. MINIMUM ORDERS

The minimum order amount, which will qualify for prepaid FOB transportation, is **$250.00** for a single order. The Buying Entity shall be required to use this contract for orders less than the minimum order amount. However, in such cases the order may be shipped prepaid and actual transportation charges may be added to the invoice as a separate line item. The transportation costs charged for orders below the minimum order amount shall be commensurate with or less than shipping charges of major small package shippers such as the US Postal Service. No surcharge or handling charge shall be added or assessed for such orders. Vendor must provide an estimated shipping amount to the Buying Entity upon request.

* 1. DEFECTIVE PRODUCTS

In the event a product is found to be defective, Vendor agrees to replace the item immediately, within the same delivery time frame at no additional charge to the State.

* 1. PRODUCT RECALL

Vendor expressly assumes full responsibility for prompt notification to the Contract Manager at the State’s Division of Purchase & Contract of any product recall in accordance with the applicable State or Federal regulations. The Vendor shall support the Contract Manager in necessary follow-up with State entities that have purchased recalled products to replace, at no cost to the State, any such products promptly.

* 1. OUT-OF-STOCK AND BACK-ORDERS

The Vendor shall notify the Buyer when one (1) or more items in an order cannot be delivered within the time specified.  After notification to Buyer by Vendor of a fulfillment delay of one or more items in the order, the Buyer may cancel undelivered items within an order, or an order in its entirety, without penalty or charge, to the extent that the notice of cancellation occurs before Buyer is notified that the delayed item or other cancelled items in the order have shipped.

* 1. AUTHORIZED RESELLER

A Vendor may bid if it is a manufacturer of the product bid or if it is an Authorized Dealer of that product. If the Vendor is an Authorized Dealer, it shall submit a certification from the manufacturer confirming that Vendor is an Authorized Dealer.

The Vendor shall be authorized by the manufacturer to distribute or resell the products and/or maintenance offered in this IFB. The Vendor shall provide a signed statement from the manufacturer confirming authorization *[choose one* with its bid response *OR* upon request from the agency.*Include the Authorized Reseller field in the Sourcing Tool if authorized reseller statement is required]* Failure to provide this statement shall constitute sufficient grounds for rejection of Vendor’s offer, at the discretion of the State.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Vendor is the:** | **Manufacturer** | **Dealer** | **Reseller** | **Distributor** |

**Authorized:  Yes  No Attached Manufacturer’s Authority:  Yes  No**

## AUTHORIZED DEALERS

An awarded Vendor may utilize approved, Authorized Dealers, to participate as alternate distribution sources for Vendor. Authorized Dealers may be added at any time during the contract term at the discretion of the Vendor, provided that they agree to comply with all terms and conditions of the awarded contract, with no set minimum or maximum number of Authorized Dealers that may be approved. Such participation is subject to the following conditions:

**Designation of Authorized Dealer(s)**

Vendor shall specify whether orders must be placed directly with Vendor or may be placed directly with Authorized Dealer(s). If Authorized Dealer(s) are designated to fulfill orders under this Contract, issue invoices and receive payment, Vendor must provide P&C, a list of those designated authorized dealers submitted with its Bid. P&C will require a vendor registration process for all Vendors recommended for contract award and their authorized dealers through the E-Procurement System. Authorized Dealers must register as an e-Procurement vendor with the State of North Carolina upon contract award and must comply with all terms and conditions of this IFB. Awarded Vendors remain responsible for contract compliance by its Authorized Dealers, and neither an order placed with, or items delivered by, a Vendor’s Authorized Dealer shall relieve the Vendor from any obligation under this contract.

**Will Vendor maintain Authorized Dealers:  Yes  No**

**Vendor shall complete ATTACHMENT K: DEALER INFORMATION for Authorized Dealers:  Yes  No**

**Modifications in Authorized Dealer List**

If a Vendor allows Authorized Dealers to participate in the Contract, post-award requests to add or delete Authorized Dealers or to modify Authorized Dealer information must be submitted to P&C’s Contract Manager for prior approval.

* 1. WARRANTY

The manufacturer’s standard warranty shall apply. In addition to the standard warranty, Vendor guarantees all items delivered to be free from any and all defects in material, packaging and workmanship and from product failures for a minimum of ten (10) years from the date of acceptance and agrees to repair or replace non-conforming items promptly at no charge to the Buying Entity.

* 1. DESCRIPTIVE LITERATURE

Vendor shall submit with the bid, vendor link for all types of furniture products being offered, in the designated area of ATTACHMENT A: PRICING SUBMITTAL WORKBOOK.

* 1. QUALITY ACCEPTANCE INSPECTION

It is the responsibility of the receiving agency to inspect all materials, supplies and equipment upon delivery to ensure compliance with the Contract requirements and specifications.

**INVOICES MAY NOT BE PAID BY THE USING AGENCY UNTIL AN INSPECTION HAS OCCURRED, AND THE GOODS ACCEPTED.**

* 1. HUB PARTICIPATION

Pursuant to North Carolina General Statute G.S. 143-48, it is State policy to encourage and promote the use of small, minority, physically handicapped, and women contractors in purchasing Goods and Services. As such, this IFB will serve to identify those Vendors that are minority owned or have a strategic plan to support the State’s Historically Underutilized Businesses program by meeting or exceeding the goal of 10% utilization of diverse firms as 1st or 2nd tier subcontractors. Vendor shall complete ATTACHMENT D: HUB SUPPLEMENTAL VENDOR INFORMATION.

* 1. REFERENCES

Vendors shall upload to the Sourcing Tool at least three (3) references, using ATTACHMENT E: CUSTOMER REFERENCE FORM, for which your company has supplied the exact model of equipment offered. The State may contact these users to determine the quality level of the offered equipment; as well as, but not limited to user satisfaction with Vendor performance. Information obtained may be considered in the evaluation of the bid.

* 1. SUSTAINIBILITY EFFORTS

According to G.S. 143-58.2, it is the policy of this State to encourage and promote the purchase of products with recycled content and to purchase items that are reusable, refillable, repairable, more durable, and less toxic to the extent that the purchase or use is practicable and cost effective.  The bid must describe how environmental requirements which relate to clear labeling of the environmental/sustainability attributes (e.g. environmental certifications, total and post-consumer recycled content, etc.) of products in the proposed product catalogs, demonstrating the ability to run usage reports that include information about each product’s environmental/sustainability attributes, packaging and recycling of spent products.

Vendors shall include any information under Section 6.14, ADDITIONAL DOCUMENTATION in the Ariba Sourcing Tool about Sustainability features of their products (to include any green certifications or other efforts. Such information, if applicable, will be made available to state entities and may be used to aid them in their selection of furniture items purchased.

* 1. RETURN POLICY

Vendor shall accept merchandise returns from Buyers for a period of thirty (30) business days after delivery. Vendor shall provide full credit or full refund to Buyers, whichever a Buyer requests, within thirty (30) business days on all returns of an ordered item that returns of an ordered product that (1) is a stock item in original packaging and in re-sellable conditions; (2) is not a specialty or customized item; (3) is defective or damaged; (4) is a return of an incorrect product shipped; (5) results from a Vendor order entry error; or (6) is non-conforming due to any other cause reasonably assumed to be the fault of the Vendor.

* 1. PRODUCT SAFETY LISTING

All manufactured items and/or fabricated assemblies subject to operation under pressure or operation involving a connection to a manufactured, natural, or LP gas source shall be constructed and approved in a manner acceptable to the appropriate State inspector which customarily requires the label or re-examination listing or identification marking of the appropriate safety standard organization; such as the American Society of Mechanical Engineers for pressure vessels, or the American Gas Association for gas operated assemblies, where such approvals of listings have been established for the type of device offered and furnished. Further, all items furnished shall meet all requirements of the Occupational Safety and Health Act (OSHA), and State and Federal requirements relating to clean air and water pollution. Having the appropriate certification or safety label affixed to any device delivered pursuant to this solicitation, under the conditions described above, is a material condition of any contract awarded as a result of this solicitation. All costs for product and industry certifications and listings required to supply conforming products to the State as described in this RFP are the sole responsibility of the Vendor. The certification or safety label shall be affixed and be visible on the OUTSIDE of all products that require a certification or safety label.

All electrical materials, devices, appliances, and equipment shall be evaluated for safety and suitability for intended use in accordance with G.S. 66-25 Acceptable Listings as to Safety of Goods.

* 1. VENDOR’S REPRESENTATIONS

If Vendor’s bid results in an award, Vendor agrees that it will not enter any agreement with a third party that may abridge any rights of the State under the contract. If any Services, deliverables, functions, or responsibilities not specifically described in this solicitation are required for Vendor’s proper performance, provision and delivery of the Service and deliverables under a resulting contract, or are an inherent part of or necessary sub-task included within such service, they will be deemed to be implied by and included within the scope of the contract to the same extent and in the same manner as if specifically described in the contract. Unless otherwise expressly provided herein, Vendor will furnish all of its own necessary management, supervision, labor, facilities, furniture, computer and telecommunications equipment, software, supplies and materials necessary for the Vendor to provide and deliver the Services and/or other Deliverables.

* 1. FINANCIAL STABILITY

As a condition of contract award, the Vendor must certify that it has the financial capacity to perform and to continue to perform its obligations under the contract; that Vendor has no constructive or actual knowledge of an actual or potential legal proceeding being brought against Vendor that could materially adversely affect performance of this contract; and that entering into this contract is not prohibited by any contract, or order by any court of competent jurisdiction

Each Vendor shall certify it is financially stable by completing the ATTACHMENT G: CERTIFICATION OF FINANCIAL CONDITION. The State is requiring this certification to minimize potential performance issues from contracting with a Vendor that is financially unstable. This Certification shall be deemed continuing, and from the date of the Certification to the expiration of the contract, the Vendor shall notify the State within thirty (30) days of any occurrence or condition that materially alters the truth of any statement made in this Certification.

## INSURANCE REQUIREMENTS

A. Default Insurance Coverage from the General Terms and Conditions applicable to this Solicitation:

Contract value in excess of $1,000,000.00

* 1. LOBBYING ACTIVITY CERTIFICATION FOR FEDERAL GRANTS

Federal law prohibits recipients of federal funds, whether through grants, contracts, or cooperative agreements, from using those funds to influence or attempt to influence (lobby) a federal official in connection with obtaining, extending, or modifying any federal contract, grant, loan, or cooperative agreement. Further, federal law requires that applicants for federal funds certify:

* that they abide by the above restriction;
* that they disclose any permissible (non-federal) paid lobbying on the Federal Awards being applied for; and
* that such certification requirements will also be included in any subawards meeting the applicable thresholds.

Vendors must complete and submit the CERTIFICATION FOR CONTRACTS, GRANTS, LOANS, AND COOPERATIVE AGREEMENTS and the OMB STANDARD FORM LLL when responding to this solicitation.

* 1. SECRETARY OF STATE REGISTRATION

Prior to the issuance of any award, the awarded vendor(s) must complete registration with the NC Secretary of State. Upon notification of award, the selected vendor(s) must furnish evidence of filing within 10 business days. Failure to provide this documentation will result in the disqualification of the vendor(s) bid from further consideration for the award.

A contract award under the above-referenced solicitation, and the resulting purchase orders, will produce repeated orders and transactions in North Carolina and will constitute “transacting business” in the State, which requires a certificate of authority from the North Carolina Secretary of State as provided in G.S. §55-15-01 (corporations) or §57D-7-01 (LLCs). Please go to: [**https://www.sosnc.gov/**](https://www.sosnc.gov/) to register.

**Vendors presently registered with the NC Secretary of State must include a copy of their certificate of authority with the bid submission under Section 6.16 in the Ariba Sourcing Tool.**

# SPECIFICATIONS

* 1. **GENERAL SPECIFICATIONS**

The below specifications and requirements are drawn around a product which the State has evaluated and determined that the size, construction, design layout, special features and performance are necessary. Vendors are requested to offer only comparable furniture which will provide the features and performance needed and implied. Furniture products provided to the State shall perform satisfactory for the use designated herein and shall at least meet the criteria listed in this IFB per the categories referenced in Section 5.4. Furniture products furnished by a Vendor shall be new, without refurbished or previously used components, manufactured with first quality materials and workmanship and generally recognized within the Furniture industry as commercially acceptable products. The State reserves the right to determine this recognition and the acceptability of the products that are proposed to be furnished under any and all awarded Contract(s) as a result of this IFB.

This solicitation applies only to furniture in the identified categories. Bids for furniture in other, related categories will not be accepted. The State will evaluate its needs for additional furniture categories and may issue additional solicitations in the future.

* 1. **GEOGRAPHIC COVERAGE**

The Vendor should provide coverage for all 100 North Carolina Counties.

* 1. **CATEGORIES**

Furniture shall be divided into the following Categories I-XVII. Vendor(s) shall be allowed to bid on any category or individual or multiple subcategory(ies) within each category.

1. **Category I: Casegoods (Desks, Credenzas, Conference Tables)**

Subcategory A: Wood Office Desks and Casegoods (Fully Assembled)

Subcategory B: Laminate Office Desks and Casegoods Desks (Modular Construction)

1. **Category II: Classroom**

Subcategory A: Chairs, General Purpose, Metal, and Chair Desks, Classroom

Subcategory B: Tables, Pupil, Metal

Subcategory C: Desks, Teacher's, Metal

Subcategory D: Tables, General Purpose, Metal

Subcategory E: Tables, Computer, Classroom

Subcategory F: Furniture, Library, Wooden

1. **Category III: Bookcases**

Subcategory A: Bookcase, Wood, Office

1. **Category IV: Ergonomic Chairs**

Subcategory A: Ergonomic Chairs

1. **Category V: Office Swivel & Side Chairs**

Subcategory A: Wood, Office Side Chairs

Subcategory B: Office Swivel Chairs

1. **Category VI: Computer**

Subcategory A: Furniture, Computer

1. **Category VII: Mobile & Folding**

Subcategory A: Chairs, Metal Folding

Subcategory B: Tables, Folding

Subcategory C: Tables, Mobile, Folding

Subcategory D: Mobile Storage Equipment, Folding Chairs

1. **Category VIII: Upholstered Seating**

Subcategory A: Lounge Seating, Upholstered (Matching Sofa, Loveseat, Chair Only)

Subcategory B: Lounge Seating, Upholstered (Sectional and Ganged Seating Only)

1. **Category IX: Commercial Dining**

Subcategory A: Chairs, Dining, Hospitality, General Purpose (Wood, Upholstered Type)

Subcategory B: Chairs, Dining, Hospitality, General Purpose (Metal, Upholstered Type)

Subcategory C: Tables, Dining

Subcategory D: Occasional Tables

1. **Category X: Metal Cabinets**

Subcategory A: Lateral, Metal

Subcategory B: Vertical. Metal

Subcategory C: Storage, Metal

1. **Category XI: Cosmetology**

Furniture, Cosmetology

1. **Category XII: Office Systems, Open Plan, Panel System**

Office Systems, Open Plan, Panel System

1. **Category XIII: Desks, Sit-To-Stand**

Desks, Sit-To-Stand

1. **Category XIV: Shelving, Metal, Wood Library**

Shelving, Metal, Wood Library

1. **Category XV: Dormitory**

Dormitory (Desks, Dresser, Loft, Cabinet, Armoire, Bunkbed, Nightstand, etc.)

1. **Category XVI: Outdoor Furniture**

Benches, Picnic Tables, Gazebos, Patio, Seating, Outdoor Dining Tables

1. **Category XVII: Residential, Institutional, Library, Academic, and Molded Furniture**

Tables, Seating, Dining Tables, Desks, Dresser, Cabinet, Armoire, Nightstand, etc.

In addition, accessories, attachments or optional items that that are related to and normally sold with or as a part of a product, product line or identified grouping of items in one of the above categories may be included in a bid submitted for that category as long as the related item does not fall within another listed category (e.g., an optional return attachment for a desk, an ottoman that matches the style covering of an upholstered chair or an open-bottom bookcase designed and sold only to fit atop a credenza). Mobile storage equipment shall be considered as an accessory for the category being bid on.

* 1. **North Carolina Furniture Specifications**

Furniture referenced for each category/sub-category in Section 5.2 shall conform to the following specifications.

**5.5.1 WOOD Office Desks and Casegoods (Fully Assembled)**

This specification covers requirements for general office casegoods. This category includes desks, credenzas, bookcases, lateral files, conference tables and worktables. These requirements are based on general industry standards and are intended to provide high quality wood casegoods that will withstand constant use for long periods. This specification is intended for general use, but may not necessarily address unusual applications, which may require specialized equipment.

**I. CLASSIFICATION**

The wood casegoods shall be classified in the following styles:

* Post and Panel
* Flush Panel (Box Construction)
* Contemporary, Slab End Panel
* Traditional

**II. APPLICABLE SPECIFICATIONS AND STANDARDS**

Referenced specifications and standards shall be the latest issue in effect on the date of the Invitation for Bids. Copies of referenced materials may be obtained from the issuing organizations at the addresses shown. The following documents form a part of this specification.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI), 1430 Broadway, New York, NY 10018:

* ANSI Z34.2-87 Self Certification by Producer or Supplier.
* ANSI/BIFMA X5.5-2008 Office Furnishings, Desk Products: Tests.

FEDERAL SPECIFICATIONS, Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

* US Dept. of Commerce PS-51-71, Hardwood and Decorative Plywood, National Bureau of Standards

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA) 2101 L Street, NW Washington, DC 20037.

* NEMA LD-3 High-pressure Decorative Laminates

**III. REQUIREMENTS**

* GENERAL REQUIREMENTS
* All casegoods furnished under this specification shall meet or exceed the requirements of ANSI/BIFMA X5.5.
* Casegoods shall be new and in first class condition. The models offered are to be in current production and standard products of an established manufacturer. All units shall be free from defects, imperfections, or hazards that might affect appearance, normal life, serviceability, or Entity safety.
* Details not specifically covered in this specification shall be in accordance with the best commercial practice for products of this type.
* Models offered are to fall within a classification and must include all items listed in the beginning of this document (Scope).
* The product offered herein must be a stand-alone product that is of a standard manufacture of the manufacturer and not modified specifically to meet the requirements of the State of North Carolina. The product offered must be offered to the general public and must be advertised in the manufacturer’s current printed literature.
* References herein to "modular" components are not to be construed as prohibiting fully assembled units.
* MATERIALS
* Wood
  1. Exterior - All exterior veneered surfaces shall be of species as stated in the Invitation for Bids. All exterior solid wood parts shall be of the same specie as veneers or other hardwoods with similar finishing characteristics. They shall be of clear face cuttings, free from visible defects.
  2. Interior - All interior structural parts not otherwise specified in the construction section shall be of furniture grade hardwoods free from defects and in accordance with best industry practice.
  3. General - All woods shall be kiln dried to a level of moisture content consistent with best gluing practice.
* Glues

To assure glue joints of maximum strength, the glues used shall be of good commercial grade and the gluing processes shall be performed in accordance with best industry practice. Joints with inadequate amount of glue or coverage are not acceptable.

* Hardware
  + Ferrules - When used, ferrules shall be of corrosion resistant materials with finish compatible with design and decor of the casegood.
  + Door Catches
* Bullet type friction catches, when used, are to have 3/8" barrel. The bullet to be adjustable and spring controlled. The escutcheon plate shall be of durable material with finish to match or blend with decor of the casegood and shall be securely mounted to the door.
* Other type friction catches or magnetic catches satisfactorily proven in field use and acceptable in the industry may be used. Finishes shall match or blend with the decor of the casegood.
  + Hinges - Hinges shall be of the concealed type and constructed and attached such that the axis of rotation (swing) of the door is absolutely parallel to the vertical corners of the casegood. Each part of conventional style hinges is to be formed from steels not less than 0.042" thick. All hinges shall be coated or plated to prevent rust and corrosion.
  + Locks - All conventional double pedestal desks to be equipped with a locking arrangement that will lock all drawers. This is typically achieved with a locking center drawer that operates a mechanism that locks and releases all drawers. One lock for each pedestal and a separate lock for the center drawer may also be used. When more than one lock is used, they shall be keyed alike. Locks for center drawers, in a modular design, are optional. Two keys will be required for each lock system.
  + Drawer Pulls - Metal drawer pulls, and metal parts of combination pulls shall be zinc die-cast, aluminum, or equivalent. Plastic in combination metal and plastic pulls shall be smooth and of ABS (Acrylonitrile Butadiene Styrene) type plastic or equivalent. Finishing on pulls shall be compatible with decor of desk. All pulls shall be securely mounted to drawer or door. Shaped pulls on edges of drawer fronts may be used.
  + Finish - The finish shall be of the best grade standard finish that the manufacturer normally uses in production. A finish sample panel approximately 6" x 12" showing steps in finish to be used shall be supplied when stated in the Invitation for Bids. Finish shall be the manufacture's standard colors unless otherwise specified.

The color and shade of finish on all exterior components throughout the unit must match in accordance with best industry practice. In this respect, it is specifically emphasized that the color and shade of an HPL top (e.g. work surface of a desk) must match the veneer surfaces elsewhere in the unit to the State’s satisfaction. Units, which, in the State’s judgement, contain components with unmatched color and/or shade, shall be rejected.

* + Plywood - All plywood shall be constructed according to the requirements of PS-51-71, including the following limitations: Bondage shall be not less than Type II. Cross banding shall be not less than Grade 2, and not less than 1/20" thick. All exposed faces (such as end panels, plywood drawer fronts, the sides of knee-space openings, top of reference slide) shall have Grade 1 veneer having matching cut, grain and color to present a uniform appearance. Grade 2 veneers shall be used on the face of unexposed panels, drawer bottom faces and backs, and for the backs of all panels. Lumber cores shall be regular grade except that no butt-end joints shall be permitted. The veneer shall be in full-length pieces and shall be applied in balanced construction form with no veneer joints less than 1" from the edge of the panels. All veneers shall be glue-edged.
  + Veneers - Before sanding, face and back veneers shall be not less than 1/36" for maple and oak and not less than 1/40" for cherry and walnut. These veneer thicknesses are applicable to all components which have veneers of the above species, whether on conventional plywood or otherwise. For other veneer species, in no case shall the veneer be less than 1/36" thick before sanding unless otherwise approved.
* DESIGN STYLES

1. Post and Panel

Casegoods shall exhibit post and panel styling with either:

* + - 1. "Underset" legs (the legs shall be set in from the exterior panels of the casegood)
      2. The posts at the four corners shall be extended to form the legs.

Conference Desks and Executive Desks:

Each desk shall be a double pedestal executive style desk. Each pedestal shall contain a minimum of either: three box drawers in one pedestal and one box drawer and a file drawer in the other pedestal, or a minimum of one box drawer and one file drawer in each pedestal. There shall be a knee space drawer. A pullout arm slide shall be located at the top of each pedestal. Grommets shall be available for wire management where requested.

Flush Panel (Box Construction)

Casegoods shall exhibit flush panel styling (box construction) with underset legs. (The legs shall be set in from the exterior panels of the casegood.)

Senior, Junior and Clerical Executive Desks:

Same requirements as 1 above

1. Contemporary, Slab End Panel

Casegoods shall exhibit slab end styling with recessed approach sides and either 3/4 or full modesty panels.

Executive Desks:

Each desk shall be a double pedestal executive style desk. Each pedestal shall contain a minimum of either: three box drawers in one pedestal and one box drawer and a file drawer in the other pedestal, or a minimum of one box drawer and one file drawer in each pedestal. There shall be a knee space drawer. Grommets shall be available for wire management where requested.

1. Traditional

Casegoods shall exhibit traditional style construction with solid hardwood edge banding, and solid hardwood base molding. Edge banding using veneer wrap is also acceptable. Shaped hardwood decorative molding, or decorative molding of an appropriate plastic type compound, shall be provided, and is to be of a style and placement typical of best industry practice. Such molding may be offered as an option.

Senior, Junior, and Clerical Executive Desks:

Each executive desk is to contain as a minimum one box drawer and one file drawer in each pedestal. There shall be a knee space drawer. A pullout arm slide shall be at the top of each pedestal. Grommets shall be available for wire management where requested.

* CONSTRUCTION

Where companion items are not covered by this or other specifications, but are called for in the IFB, the intent is for the Vendor to quote on items of comparable quality and appearance to those specifically described herein. The companion items shall be those normally offered in the same series as those described herein.

The chassis shall be constructed in such a manner that “racking” does not occur under any condition. “Knock-down”/cam lock assembly construction is not permitted.

Determinations concerning acceptability of the quality offered shall be the sole discretion of the Division of Purchase and Contract.

1. Individual Components
2. Exterior - Exterior surfaces of plywood such as panels and drawer fronts shall be face veneer, with a veneer thickness of not less than that specified in Section III.B.3.h above. All exterior solid wood parts such as parting rails, posts, top banding, and panel molding shall be in compliance with the applicable provisions of Section III.B.1.a above. High-pressure Laminate is not permitted on vertical surfaces, such as panels and drawer fronts.
3. Tops - Unless otherwise specified in the Invitation for Bids or on the purchase order, for Post and Panel, Flush Panel, and Slab End Panel designs, tops shall be minimum 3-ply core construction, 1 3/32" thick, and faced and self-edged with a high-pressurehigh-pressure laminate (HPL) plastic in accordance with NEMA LD-3, GP-50 standard and backed with a balancing sheet. Edge banding with solid hardwood is also acceptable. PVC type plastic facing material on working surface or edge banding of tops is not allowed.

Unless otherwise specified in the Invitation for Bids or on the purchase order, for Traditional designs, top shall be minimum 3-ply, core construction, 1 3/32" thick, and faced and edged with furniture grade hardwood veneer of the species called for in the Invitation for Bids, and in full accordance with best industry practice and free of any defects, visual or otherwise. Veneer thickness shall be not less than that specified in Section III.B.3.h above. Edge banding may be either solid hardwood or veneer wrap. On Traditional desks ordered with HPL tops, edge banding may be HPL, veneer, or solid hardwood.

For all designs, high-density flakeboard cores, when used, shall be the best quality that manufacturer normally uses for this quality casegood and be minimum 45 lb. density.

1. Panels - All panels shall be minimum 3-ply laminated construction. Three-ply veneer panels shall be minimum 3/16" thick. End panels and approach panels on high density flakeboard in flush panel or box construction shall be minimum 3/4" thick (11/16” thick for approach panels) and minimum 45 lb. density unless otherwise specified.
2. Drawers - Drawer fronts shall be 5-ply laminated construction, or minimum 3-ply balanced laminated construction or 45 lb. high density fiberboard with veneer on both sides. (For the purposes of this specification, “high density fiberboard” is defined as finely ground wood chips, pressed, and glued together). OVERLAPPING drawer fronts are not acceptable for the POST AND PANEL, FLUSH PANEL, and TRADITIONAL classifications. Drawer sides and backs shall be of solid oak or other furniture grade hardwoods, or hardwood plywood, in accordance with best industry practice and finished minimum 7/16" thick. Detachable drawer fronts to be acceptable. Vinyl-wrapped drawer sides or sides fabricated from particleboard, flake board, or a related material are not acceptable.

For inset drawers, the difference in the size of the drawer opening and the drawer front shall be no greater than ¼” (total) in height, and ¼” (total) in width. Drawers shall be installed so that the drawer is centered in the drawer opening.

Drawer bottoms shall be minimum 1/8" thick 3-ply with oak face, or 1/8" fiberboard with printed face compatible with the finish of the drawer. Bottoms shall be fitted into grooves on all four sides and stabilized with glue blocks, hot melt adhesive or coated staples.

Drawers shall have dovetail (both English and French types are acceptable) construction at all four corners. Chuck-and-bore construction, bored-and-doweled construction, and box joint construction are also acceptable. All drawer corner joints shall be tight, free from cracks or missing wood, and properly and fully glued. Use of staples on corner joints is not acceptable. However, it is acceptable to use pins in addition to the above joining methods for additional joint reinforcement. Rabbeted, rabbeted-and-pinned, four-sided miter or other methods of construction are not allowed.

In assembled desks, file drawers shall operate on full extension, roller bearing, or ball bearing suspensions (Ex: “Accuride”-type”) and shall be rated to hold a minimum of 50 lbs. per drawer. Box and pencil drawers shall operate on a roller bearing or ball bearing suspension (Ex: “Accuride”-type”). Drawers determined by the State to be significantly shorter than the industry norm for the given desk size are not acceptable. Drawer length (inside dimension) shall be a minimum of 80% of the depth (inside dimension) of the pedestal. Drawers (except file drawers as specified above) shall, when fully opened, expose a minimum of 75% of the drawer depth (inside dimension). The length of the drawer suspensions shall be within approximately 3” of the inside depth of the pedestal.

**Note: All ball bearings must be metal, no plastic balls, retainers or races allowed**

All file drawers on desks and credenzas shall be such that as furnished they will accommodate both letter and legal-size folders, whichever size is elected by the end Entity. A complete set of supports for both letter and legal-size hanging type folders is to be included. Folder hanger hardware is to be set up at delivery for letter size folders. Any holes required to locate hardware to hang legal size folders are to be drilled by Vendor. Relative arrangement of file drawer, suspension, case, and hanger hardware is to be such that a standard Pendaflex hanging folder equipped with plastic tab on top edge and properly suspended from the file hanger rails clears the parting rail or drawer front above it during drawer operation and does not drag the drawer bottom.

All drawers (file, box, and center) are to be removable from the case by the Entity. Release mechanisms (to allow such removal of the drawers from the case) are to be easily accessible by Entity without tools. Otherwise, the casegood is to be provided with an appropriate tool to enable the Entity to actuate the release mechanism. In addition, if shipping screws to retain the file drawer during transit are provided, these must be clearly labeled as such, or else written instructions are to be provided in the drawer advising the Entity as to the location of these screws and that they need to be removed in order to remove the drawer.

If center drawers are not full extension and the back of the drawer is not easily accessible, vendor is to install an appropriate barrier across the inside rear part of the drawer to prevent items from moving into the inaccessible rear portion thereof.

All drawer margins shall be even, without any evidence of misalignment of the drawer in closed position. On each drawer, the suspension shall be adjusted so that the drawer hits both stops simultaneously at drawer’s limit of withdrawal.

1. Pullout arm slides - The slides shall be a minimum 3-ply laminated construction on 45 lb. High-density flakeboard core with face solid wood or high-pressure laminate. The slide shall have a finger hole pull on the side or underside, or a button pull on the front edge. A slide shall be provided for the top of each pedestal except that it may be optional in the slab end design.
2. Posts - On post-and-panel models, posts shall be solid wood as specified in the materials section with an approximate dimension of 1 3/4" x 1 3/4". The smallest dimension shall not be less than 1 1/4" with a cross section not less than 2.5 square inches.
3. Legs - Legs shall be in accordance with standard manufacture - wood, metal, or plastic, rectangular, round or square with or without ferrules matching trim hardware. All legs shall be equipped with adjustable levelers. Detachable legs shall be securely fastened to pedestal bottom by anchor bolts and tee nuts. The smallest dimension shall not be less than 1 1/4" with a minimum cross section of not less than 2.25 sq. inch.
4. Bottom Edge - The bottom edge of all panels and other components around the bottom perimeter of the desk shall be smoothed to prevent snagging or veneer tear out by housecleaning appliances. An edging or molding may be applied to the bottom of panels for this protection.

**5.5.2 Laminate Office Desks and Casegoods Desks (Modular Construction)**

This specification covers requirements for low VOC, high-recycle content, general office casegoods. This category includes desks, credenzas, bookcases, lateral files, conference tables and worktables. These requirements are based on general industry standards and are intended to provide good value wood casegoods that will withstand constant use for long periods. This specification is intended for general use and therefore may not necessarily address unusual applications which may require specialized equipment. Notable features include modularity, laminate finished panels and vinyl-wrapped overlapping drawer construction, as a base model, with numerous orderable options.

**I. CLASSIFICATION**

This grade of casegoods is available in the following styles:

1. Contemporary, Slab End Panel
2. Traditional

**II. APPLICABLE SPECIFICATIONS AND STANDARDS**

Referenced specifications and standards shall be the latest issue in effect on the date of the Invitation for Bids. Copies of referenced materials may be obtained from the issuing organizations at the addresses shown. The following documents form a part of this specification.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI), 1430 Broadway, New York, NY 10018:

* ANSI Z34.2-87 Self Certification by Producer or Supplier.
* ANSI/BIFMA X5.5 - 2008 Office Furnishings, Desk Products: Tests.
* ANSI A208.1-2009 – Particleboard/Flakeboard
* ANSI A208.2 Formaldehyde emission limit for Medium Density Fiberboard (MDF).
* ANSI-A161.2-98 – American National Standard for Particleboard

FEDERAL SPECIFICATIONS: Superintendent of Documents, US Government Printing Office, Washington, D.C. 20402.

* US Dept. of Commerce PS-51-71, Hardwood and Decorative Plywood, National Bureau of Standards

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA), 2101 L Street, NW Washington, DC 20037.

* NEMA LD-3 GP-50, LD-3 GP-28 decorative high-pressure laminates and NEMA BK-20 high-pressure brown backer.

**III. REQUIREMENTS**

1. GENERAL REQUIREMENTS

1. All casegoods furnished under this specification shall meet or exceed the requirements of ANSI/BIFMA X5.5 tests.

2. Casegoods shall be new and in first class condition. The models offered are to be in current production and standard products of an established manufacturer. All units shall be free from defects, imperfections, or hazards that might affect appearance, normal life, serviceability, or Entity safety. There will be no bare core visible anywhere. A permanent tag with the name of manufacturer and date of manufacture must be attached to the frame of the finished product, in the knee space area, prior to delivery.

3. Details not specifically covered in this specification shall be in accordance with the best commercial practice for products of this type.

4. Models offered are to fall within a classification and must include all items listed in the beginning of this document (Scope).

5. The product offered herein may not be modified specifically to meet the requirements of the State of North Carolina. The product offered must be offered to the general public and must be advertised in the manufacturer’s current printed literature.

6. References herein to "modular" components are not to be construed as prohibiting fully assembled units.

1. MATERIALS
   * + 1. Construction
   * Exterior - All exterior visible surfaces shall be finished with color and/or grain matching laminated panels. Horizontal exterior surfaces shall be finished in GP-50 high-pressure plastic laminates and all vertical surfaces, plus exposed ends, finished in GP-28 high-pressure plastic laminates. All other exterior wood parts shall exhibit similar finishing characteristics, except for the BK20 backer material, and be free from visible defects.
   * Interior - All interior structural parts, not otherwise specified in the construction section, shall be of furniture grade woods free from defects and in accordance with best industry practice.
   * General - All woods shall be kiln dried to a level of moisture content consistent with best gluing practice, typically 8-10 percent.
     + 1. Glues

To assure glue joints of maximum strength, the glues used shall be of good commercial grade and the gluing processes shall be performed in accordance with best industry practice. Glued corner braces, where utilized, may be stapled at the time of assembly as temporary holds but may not be relied upon to secure the finished joints. Hardwood dowels must be glued and have straight or spiral-type glue relief slots. Biscuits, if used, must be glued where they make contact with adjacent components. Glues used during construction are to be known in the industry as low VOC types of adhesives.

* + - 1. Components

1. Ferrules – When, when used, shall be constructed of corrosion resistant materials with a finish compatible with design and decor of the casegoods.
2. Door Catches

* Bullet type friction catches, when used, are to have a 3/8" barrel. The bullet is to be adjustable, and spring controlled. The escutcheon plate shall be of a durable material with a finish to match or blend with the decor of the casegoods and shall be securely mounted to the door.
* Other types of friction catches, or magnetic catches satisfactorily proven in field use and acceptable in the industry may be used. Finishes shall match or blend with the decor of the casegood.

1. Hinges - Hinges shall be of the concealed type and constructed and attached such that the axis of rotation (swing) of the door is absolutely parallel to the vertical corners of the casegood. Each part of conventional style hinges is to be formed from steels not less than 0.042" thick. All hinges shall be coated or plated to prevent rust and corrosion.
2. Locks - Double pedestal desks shall have the option to specify, keyed alike, locks for each pedestal and the center drawer. Two keys required for each unique lock installed.
3. Drawer Pulls - Metal drawer pulls, and metal parts of combination pulls shall be zinc die-cast, aluminum, or equivalent. Plastics used in combination metal and plastic pulls shall be smooth and of ABS (Acrylonitrile Butadiene Styrene) type plastic or equivalent. Finish on pulls shall be compatible with and compliment the decor of the desk. All pulls shall be securely mounted to drawers or doors. Shaped pulls on edges of drawer fronts may be used.
4. Finish - The finish shall be of the best grade standard finish that the manufacturer normally uses in production. A finish sample panel approximately 6" x 6" showing steps used in finishing shall be supplied when stated in the Invitation for Bids. Finish shall be the manufacture's standard colors unless otherwise specified.

Color and shade of final finish on all exterior components throughout the unit must match in accordance with best industry practice. In this respect, it is specifically emphasized that the color and shade of a top (e.g. work surface of a desk) must match surfaces elsewhere in the unit to the State’s satisfaction. Units which in the State’s judgement contain components with unmatched color and/or shade shall be rejected.

1. Wood Core Materials:

* Wood species: Types most suitable for furniture construction. Kiln dried, free from defects and straight prior to any machining operations. Wood species must also be suitable for staining and sealing.
* Particle Board – Must be industrial grade, furniture quality, particle board or IPB with a density of 45 pounds per cubic foot as defined by ANSI A208.1.
* Plywood – furniture grade type, 5-ply minimum.
* MDF – Medium Density Fiberboard shall have a density between 45 and 55 pounds per cubic foot.
* Hardboard - Must be high density type, 72 pounds per cubic foot type. Sizes approved are 1/8 inch, 3/16 inch and ¼ inch thick.
* Phenolics: Not approved for use.

1. Plastic Laminate Material applications:

* Laminates – Desktops and horizontal surfaces are to utilize High-pressure Laminates meeting NEMA GP-50 on desktops and NEMA GP-28 on vertical panels. A brown backer, meeting NEMA BK-20, is to be utilized on the desktop bottom surface.
* Vinyl – Material, and its core, must be suitable for the construction of vinyl wrapped drawer construction utilizing “V” notch folds. Must be a liquid resistant grade material.

1. DESIGN STYLES
2. Contemporary, Slab End Panel

Casegoods shall exhibit slab end styling with recessed approach sides and either 3/4 or full modesty panels.

Executive Desks:

Each desk shall be a double pedestal executive style desk. Each pedestal shall contain a minimum of either: three box drawers in one pedestal and one box drawer and a file drawer in the other pedestal, or a minimum of one box drawer and one file drawer in each pedestal. There shall be an orderable optional knee space drawer or keyboard tray. A pullout arm slide shall also be available, as an orderable option, at the top of each pedestal. Grommets shall be available for wire management where requested.

1. Traditional

Casegoods shall exhibit traditional style construction to include laminate or solid wood desktop edge banding, a modesty panel and solid wood base moldings. Configuration and orderable options shall be the same as the Executive Desk. Optional shaped hardwood decorative edge molding, or a decorative molding of an appropriate plastic type compound, shall be provided, and is to be of a style and placement typical of best industry practice.

Senior, Junior and Clerical Executive Desks:

Each desk of this type is to contain as a minimum one box drawer and one file drawer in each pedestal. There shall be an orderable option knee space drawer or keyboard tray. A pullout arm slide shall be available, as an option, at the top of each pedestal. Grommets shall be available for wire management where requested.

1. CONSTRUCTION

Where companion items are not covered by this or other State of North Carolina specifications, but are called for in the IFB, the intent is for the Vendor to quote on items of comparable quality and appearance to those specifically described herein. The companion items shall be those normally offered in the same series as those described herein. All items will be shipped from the factory fully assembled unless purposely specified in the purchase order as shipped flat and assembled on site by the manufacturer.

The chassis shall be designed and constructed in such a manner that “racking” does not occur under any conditions. Cam-lock designs are not permitted. However, designs can exhibit modularity that allows “flat stacked” shipping and quick assembly at installation, yet robust enough to withstand years of moving furniture from one site to another without disassembly or creating any aesthetic or functional problems for the end Entities. Modular designs must utilize screw heads that can withstand high torques and are reusable. Hardwood dowels must be used to align and secure all major components.

Determinations concerning acceptability of the quality offered shall be the sole discretion of the Division of Purchase and Contract.

1. Individual Components
2. Exterior - Exterior vertical surfaces of panels shall be finished on both sides and match the desktop. All exterior solid wood parts such as parting rails, posts, top banding, and panel molding shall match the top and vertical panel finishes.
3. Tops - Constructed from 1" minimum, nominal thickness, and core material. Edged profiles are to be finished with a separate decorative wood trim or self-edge matching laminate material. Top surface shall be finished with a High-pressure Laminate and bottom surface backer sheet. High-pressure top surface laminates to meet or exceed NEMA LD-3 GP-50 performance standards and to be available in a variety of common wood-grain and solid colors. Perimeter vertical flat edges are to be self-edged.

For all offerings, cores shall be best quality that manufacturers normally use for casegoods. See B.3.g “Wood Cores” for core options.

1. Panels - All vertical panels shall be minimum 1/2" thick plywood or PB, finished with high-pressure plastic laminate that meets NEMA LD-3 GP-28 and match finished to the desk-top surface finish.
2. Drawers – Detachable overlapping drawer fronts shall be core material construction and finished to match all exposed surfaces, and the interior side finished with a backer sheet. Drawer fronts are to overlap desk frame and be screwed to drawer box with at least 4 screws. Drawer box shall be vinyl wrapped all sides, “v” notched, and moisture resistant MR-MDF core construction. Detachable drawer fronts are to be aligned, at final desk assembly, so that gaps are equal and all flat edges are in the same plane. Drawers shall be installed so that they are centered in the drawer openings. Drawer bottoms shall be glued and compatible with and as durable as the vinyl wrapped side construction. Bottoms shall be fitted into grooves on all four sides and stabilized with at least two equally spaced wedge blocks on the long sides and one equally spaced on the short sides using a fast-setting adhesive. Brads may be used to hold the blocks while the glue sets.

In an assembled desk, file drawers shall operate on full extension, metal ball bearing suspensions and shall be rated to hold 40 lbs per drawer. Box drawers shall operate on ball bearing suspensions as well and be rated to hold 30 lbs per drawer. Drawer length (inside dimension) shall be a minimum of 80% of the depth (inside dimension) of the pedestal. Drawers (except file/box drawers as specified above) shall, when fully opened, expose a minimum of 75% of the drawer depth (inside dimension). The length of the box/file drawer suspensions shall be within 2” of the drawer length.

All file drawers on desks and credenzas shall be such that as furnished they will accommodate both letter and legal size folders, whichever size is elected by the end Entity. A complete set of supports for both letter and legal size hanging type folders are to be included for each file drawer. Folder hanger hardware is to be set up at delivery for letter size folders. Any holes required to locate hardware to hang legal size folders are to be drilled by Vendor. Relative arrangement of file drawer, suspension, case, and hanger hardware is to be such that a standard Pendaflex hanging folder equipped with plastic tab on top edge and properly suspended from the file hanger rails clears the parting rail or drawer front above it during drawer operation and does not drag the drawer bottom.

All drawers (file, box, and center) are to be designed so that they can be removed from the desk by the Entity. Release mechanisms (to allow such removal of the drawers from the case) are to be easily accessible by Entity. Otherwise, the casegood is to be provided with an appropriate tool to enable the Entity to actuate the release mechanism. In addition, if shipping screws to retain the file drawer during transit are provided, these must be clearly labeled as such, or else written instructions are to be provided in the drawer advising the Entity as to the location of these screws and that they need to be removed in order to remove the drawer.

Center drawer shall be an orderable option and offered in both a matching pencil drawer with glued felt liner or as an adjustable keyboard tray.

All drawer margins shall be even, without any evidence of misalignment of the drawer in closed position. On each drawer, the suspension shall be adjusted so that the drawer hits both stops simultaneously at drawer’s limit of withdrawal.

1. Pullout arm slides - The slides shall be 5/8” core construction and match laminate finished. The slide shall have industry standard matching pull hardware on the front edge.
2. Legs - Legs shall be in accordance with standard wood, rectangular, round or square shaped with or without ferrules in matching trim hardware. All legs shall be equipped with adjustable levelers. Detachable legs shall be securely fastened to pedestal bottom by anchor bolts and tee nuts. Minimum cross sectional area shall be 1.77 sq. inches.
3. Bottom Edge - The bottom edge of all panels and other components, around the bottom perimeter of the desk, shall be core construction and finished to match.

**5.5.3 Chairs, General Purpose, Metal, and Chair Desks, Classroom**

This specification establishes requirements for steel frame chairs and chair desks, with plastic seats and backs, for use in classrooms and institutions.

1. **CLASSIFICATION**
2. Chairs, chair/desks covered by this specification shall be classified as follows:

TYPE I. Separate seat and back

**Styles** Styles are described below A through F.

Each Style is further defined with a numeric suffix 1, 2, or 3

These are:

1. Thermoplastic Seat and back
2. Thermoset Seat and back 5/8" thickness
3. Thermoset Seat and back 3/8" thickness

A typical chair classification format would be shown as Type I.B.2

*The following drawings are provided as a visual representation of the different Types and Styles of Chairs covered in this specification and are not intended to represent any preferred type of frame detail design.*

|  |  |  |
| --- | --- | --- |
| **Product** | **Style** | **Description** |
| A black and white drawing of a chair  Description automatically generated with low confidence | **A**  **A-X** | Side chair without arms, with tubular steel frame other than "H" leg base. Plain leg assembly (No bracing).  As style A, except braces connecting legs |
| A picture containing furniture, seat, chair  Description automatically generated | **A-H** | As Style A, except with tubular steel 'H' frame. |
| A close-up of a trampoline  Description automatically generated with medium confidence | **A-HX** | As Style A-H, except with an “X” brace connecting legs. |
| A picture containing furniture, seat, indoor, chair  Description automatically generated | **A-HBR** | As Style A-H, except with a book rack connecting legs. (Not a book basket.) |
| A picture containing furniture, seat, chair  Description automatically generated | **A-HBB** | As Style A-H, except with a book basket between legs. (Not a book rack.) |
| A picture containing table, linedrawing  Description automatically generated | **B** | Side chair without arms, with tubular steel frame Sled base. |
| A picture containing handcart, seat  Description automatically generated | **C** | Side (teacher) chair without arms, with casters, tubular steel frame other than "H", leg base. |
|  | **D**  **D-H** | Tablet chair/desk, with tubular steel frame other than "H", leg base (Large writing surface 300 Sq. inches minimum)  As Style D, except with tubular steel 'H' frame. |
| A picture containing furniture, table, worktable  Description automatically generated | **E** | Study desk/chair combination (COMBO), with leg base, with arm brace. |
|  | **F** | Study desk/chair combination (COMBO), with leg base, without arm brace (double entry). |

Type II - Metal Frame with INTEGRAL Seat and Back (Thermoplastic seat and back)

|  |  |  |
| --- | --- | --- |
| **Product** | **Style** | **Description** |
| A picture containing furniture, seat, chair  Description automatically generated | **A** | Side chair without arms, with tubular steel frame other than "H", leg base. |
| A picture containing text, furniture, seat, chair  Description automatically generated | **B** | Side chair without arms, with tubular steel frame Sled base. |
|  | **C** | Side (teacher) chair without arms, with casters, with tubular steel frame other than "H",leg base |
| A black and white drawing of a chair  Description automatically generated with medium confidence | **D** | Tablet chair/desk, with tubular steel frame other than "H", leg base (Large writing surface 300 Sq. inches minimum) |
| A picture containing furniture, seat, chair, table  Description automatically generated | **E** | Tablet chair/desk, with tubular steel frame Sled base (Small writing surface 150 Sq. inches minimum and a maximum of 299 Sq. inches) |
| A picture containing table  Description automatically generated | **F** | Study desk/chair combination (COMBO), with leg base without arm brace (double entry). |
| A picture containing table  Description automatically generated | **G** | Study desk/chair combination (COMBO), with Sled base without arm brace (double entry). |

1. The chairs defined in this document are intended to cover most movable chairs for general purpose use in classrooms, lounges, snack bars, multipurpose rooms, assembly halls, et cetera. It is intended to make available a wide selection of chairs for uses where non-upholstered chairs are required.
2. Chair frame configuration. The 'H' frame is defined as a chair frame having parallel tubing running front to back of seat area. The front legs and back support are one continuous tube. The rear legs and seat support are also one continuous tube. The adjacent parallel lengths of the two tubular sections are joined by multiple non-exposed weldments.
3. The standard height of Chairs &Chair/Desks is defined as follows:

|  |  |
| --- | --- |
| Kindergarten | 9-12 inches |
| Grade 1 | 12-14 inches |
| Grade 2 & 3 | 13-14 inches |
| Grade 4, 5, and 6 | 15-16 inches |
| Grade 7 thru College | 17-18 inches |
| Teacher Chair | 17-18 inches |

The actual seat height (range) of each Type & Style to be specified in the Invitation for Bids.

The defined product requirements herein are not intended to include all varieties of the commodity as indicated by the title of this document, or which may be commercially available, but is intended to cover only those commonly used by state agencies and the public schools. Listing of a product is not intended to and does not connote endorsement of the product by the state.

1. **APPLICABLE SPECIFICATIONS AND STANDARDS**

Reference to specifications, standards, test methods, and other documents shall be to the issues in effect on the date of the IFB. Copies of the referenced documents may be obtained from the issuing organizations. The following documents and / or publications form a part of this specification to the extent specified herein.

NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION (NEMA).

* LD-3 - High-pressure Laminate.

ANSI/BIFMA

* ANSI/BIFMA X6.1 Educational Seating Tests
* ANSI A208.1- Particleboard
* ANSI A208.2- Medium Density Fiberboard (MDF)
* ANSI/HPVA HP-1 Hardwood and Decorative Plywood

1. **GENERAL REQUIREMENTS**
2. Products furnished per this document shall meet or exceed the following requirements:
3. All chairs shall be new, unused, and a current standard product of an established manufacturer. The manufacturer’s standard product may not be altered to meet the requirements of this specification.
4. All chairs shall present a neat, well-finished appearance and shall be free from all imperfections and/or defects, which might affect appearance, normal life, safety or serviceability. Tubing ends shall be free from sharp edges that could cause cuts or minor abrasions to fingers during normal use. Open tubing ends shall be capped/plugged or crimped. Fasteners (screws, bolts, etc.) that are used to fasten backs, seats, writing surfaces, etc. to the frame shall not be visible on the exterior surfaces of these parts.
5. All metal parts shall be inherently corrosion resistant, or suitably treated to resist corrosion.
6. Plastic surfaces shall be free from ripples and thin spots, and have a bright color fast appearance.
7. The chair form shall facilitate proper posture and relieve lower back pressure. It shall have a seat front lip design that prevents any restriction of circulation in the Entity's legs.
8. **SPECIFIC PRODUCT REQUIREMENTS**
9. Type I Style A, A-H, A-HX, A-HBR, A-HBB, Type II Styles A & B

Side chair without arms, with tubular steel frame.

1. General:

The classroom side chair is defined as a chair without arms and without casters. The seat and back shall be either integral (Type II) or separate (Type I) and supported by a tubular steel frame and legs. The seat heights are specified in the Invitation for Bid.

The frames shall be self-supporting, and constructed from square, oval or round tubular steel.

Where the Style is defined without a suffix (example = A), the chair shall be designed with a frame configuration per manufacturers standard production model that does NOT have an "H" frame.

Where the Style is defined with a suffix "H" (example = A-H), the chair shall be designed with a "H" frame configuration. The suffix “X” = “x” brace configuration and the suffix “BR” = book rack (not book basket). See Paragraph III C for a detailed description.

|  |  |  |
| --- | --- | --- |
| Example = | Style A. | Manufacturers option but NOT an "H" frame |
|  | Style A-H. | MUST have an "H" frame configuration |
|  | Style A-HX. | MUST have an "H" frame configuration, “X” brace configuration |
|  | Style A-HBR. | MUST have an "H" frame configuration, book rack configuration |
|  | Style A-HBB. | MUST have an "H" frame configuration, book basket configuration |

There are two basic leg configurations, Leg base and Sled base. "Leg base" styles shall have a straight and/or tapered leg cross section. The chair seat and back shall be constructed from thermoset (identified with -2, -3 suffix), or thermoplastic (identified with -1 suffix) and shall be supplied as either a separate seat and back (Type I) or as a single molded integral seat and back (Type II) as defined in this specification. An acceptable alternative for the thermoplastic seat and back material is Fiberglass.

Thermoset Plastic:

A material having properties of becoming permanently hard and rigid when heated and cured. It is capable of changing from a plastic or fusible state by a chemical reaction effected by heat or other means, leading to a complex polymer.

Thermoplastic

A material having properties of softening and fusing when heated but becomes rigid when cooled. The material can be re-melted and cooled time after time without undergoing any appreciable chemical change. Typical materials are polypropylene and polyethylene.

1. Structural requirements

Type I (Separate seat and back) frames shall have a steel back support. The diameter of the tube, the gauge thickness and strength properties of the steel selected shall provide a structure that will withstand the normal loads and flexure cycling of the seat back.

The chair must successfully complete the performance tests as outlined in section II.B. The comprehensive tests must be performed by an independent testing laboratory and results made available when requested by the State.

1. Book Racks / Baskets

If specified in the IFB factory installed bookracks or book-baskets shall be furnished. The rack/basket shall be free from sharp, rough edges, or protruding parts that might snag clothing or cause injury. The rack/basket frame shall be constructed from 1/4 inch minimum diameter steel rods welded together, then welded to the chair frame.

1. Glides

Glides shall be plated steel-cushioned, nylon, plated steel or stainless steel and be of the "boot" (ferrule) design. There shall be a minimum of one retaining clip or heavy-duty pressure ring holding the booted glide within the leg tubing. Glides shall be of a self-leveling swivel design. The outside diameter of the glide pad that contacts the floor shall be 3/4 inch minimum. Glides shall not be removable without the use of tools. Glides are not to be furnished with sled base chairs.

1. Finish (metal parts)

Product should be available either painted or chrome plated. as specified in the Invitation for Bids

1. Painted:

All painted surfaces shall be thoroughly cleaned and free of dirt, oil, grease, moisture, or other foreign matter prior to painting.

After cleaning, the frame shall be coated with a paint- bond coating and a rust inhibitor compatible with the top or finish coat. The finish coat shall consist of high temperature enamel applied and baked in accordance with the paint manufacturer's recommendations (or the manufacturer's standard acrylic/epoxy-based enamel coating of comparable quality). The enamel shall be the non-chipping type. There shall be no indication of rust, or decay, under the coating. An equivalent thermoset epoxy resin dry powder coating, electrostatically applied, shall also be acceptable.

1. Chrome Plated:

All metals which are to be chrome-plated shall be treated by the manufacturer's standard electrical and chemical cleaning process. Chrome shall be plated over a Nickel base. The chrome shall be corrosion and chip resistant. The number of joints welded after chrome plating shall be kept to a minimum. The joint shall be cleaned and dressed and finished with a rust preventative paint to match the chromed finish.

1. Type I Style C & Type II Style C

Side (teacher) chair without arms, with casters, with tubular steel frame leg base

1. General.

The basic chair construction, materials and finishes shall be as defined in the previous Side Chair, with the exception of the following: The teacher chairs shall be supplied with composite rubber/plastic ball or wheeled casters, 2 inches diameter (minimum). The caster shall be of rugged construction and appropriate for use on vinyl tiles and carpet.

1. Type I Style D & D-H & Type II Styles D &E

Tablet chair/desk, with tubular steel frame leg base.

1. General.

The tablet chair desk is defined as a chair with a tablet attached to the seat and/or back structural frame. (The tablet itself does not have any floor support legs).

The basic chair/desk construction, materials and finishes shall be as defined in the previous Side Chair with the exception of the following:

1. Tablet

Tablet chair desks shall be furnished with a right tablet arm, unless otherwise stated in the IFB. The shape of the tablet shall be at the option of the manufacturer; however, it shall have a minimum of 300 sq. inches top surface to be classified as having a large writing surface. A Small writing surface shall have a minimum of 150 sq. inches and a maximum of 299 sq. inches top surface.

Tablet tops may be produced from: 1) a heat-set and compression formed wood fiber material producing a very high-density core and hard durable surface or 2) a solid thermoset plastic or 3) a HPL-surfaced high density core. Cores can be resin board, fiber board, particle board, recycled wood fibers or plywood when specified in the Invitation For Bid. The core thickness shall be a minimum of 1/2 inch. The edges shall be shaped and rounded, and the corners shall be rounded; edges shall be sealed (where applicable). The writing surface shall resist stains, scratches, burns, severe impacts and be non-porous.

Those cores that are top surfaced with a HPL plastic writing surface must comply with NEMA LD3 Grade GP 28 or better and the bottom of the tablet shall have a backing sheet.

Cores that are top surfaced with a HPL plastic writing surface which must comply with NEMA LD 3 (Latest Revision) Grade GP 28 or better. The bottom of the tablet shall have a backing sheet.

The tablet arm shall be securely fastened to the arm support or supports and shall not loosen under normal use.

1. Type I Styles E, F & Type II Styles F & G

Study desk/chair combination (COMBO)

1. General.

The study desk/ chair is defined as a chair with a tablet attached to the seat or back structural frame plus additional floor supporting leg structure attached to the tablet. The writing surface shall be a minimum of 400 sq. inches. Other requirements for this item are the same as defined above for the Tablet chair/desk.

There are two tablet configurations required; a desk with an arm brace and a desk without an arm brace which allows entry from the left or right.

**5.5.4 Tables, Pupil, Metal**

This specification establishes requirements for steel frame pupil tables, with book storage for use in classrooms and institutions.

1. **CLASSIFICATION**
2. Pupil tables covered by this specification shall be classified as follows:

|  |  |  |
| --- | --- | --- |
| A picture containing seat, stool, furniture  Description automatically generated | A picture containing wall, indoor, table, lamp  Description automatically generated | **No graphic available** |
| TYPE I STYLE A1 & A2 | TYPE I STYLE B1 | TYPE I STYLE C1 |

**Type I: CLOSED CONTAINMENT book storage.**

**Style A - Leg base** with metal tubular frame

1.- Fixed height

2.- Adjustable height

**Style B - Pedestal base.**

1.- Fixed height

2.- Adjustable height

**Style C - Leg base** with unit body construction

1.- Fixed height

2.- Adjustable height

A picture containing furniture, seat, chair, table

Description automatically generated

TYPE II STYLE A 1

**Type II: OPEN CONTAINMENT book storage.**

**Style A - Leg base** with metal tubular frame

1.- Fixed height

2.- Adjustable height

The above drawings are provided as a visual representation of the different Types and Styles of Pupil tables covered in this specification. These drawings are not intended to represent any preferred type of frame detail design. See specification and IFB for ordering information on frame design, etc.

1. The pupil tables defined in this document are intended to cover a consolidation of movable tables for general purpose use in classrooms. The defined product requirements herein are **not intended to include all varieties** of the commodity as indicated by the title of this document, or which may be commercially available, **but is intended to cover only those commonly used by state agencies and the public schools.** Listing of a product is not intended to and does not connote endorsement of the product by the state.
2. **APPLICABLE SPECIFICATIONS AND STANDARDS**

Reference to specifications, standards, test methods, and other documents shall be to the issues in effect on the date of the IFB. Copies of the referenced documents may be obtained from the issuing organizations. The following documents and / or publications form a part of this specification to the extent specified herein:

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

* ANSI A208.1 - Particleboard.
* ANSI/HPMA HP - Hardwood and Decorative Plywood.
* ANSI/BIFMA X5.5 – Desk Products
* ANSI A208.2 – Medium Density Fiberboard (MDF)

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

* ASTM D 1037 - Method for Evaluating properties of wood base Fiber and Particle panel materials.

FEDERAL SPECIFICATIONS.

* L-P 5089 - Plastic sheet, laminated, decorative and non-decorative.
* LLL-B-810 - Building board (Hardboard) Hard-pressed vegetable fiber.
* TT-C-490 - Cleaning methods for ferrous surfaces and pretreatments for organic coatings.

IRON AND STEEL SOCIETY (ISS).

* Steel sheet manual.

NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION (NEMA).

* LD-3 - High-pressure Laminate.

1. **GENERAL REQUIREMENTS.**
2. Products furnished per this document shall meet or exceed the following requirements:
   * + 1. All tables shall be new, unused, and a currently standard product of an established manufacturer except for such deviations as may be required by this document or the Invitation for Bids.
3. All tables shall present a neat, well-finished appearance inside and outside and shall be free from all imperfections and/or defects, which might affect appearance, normal life, or serviceability.
4. All metal parts shall be commercial quality and inherently corrosion resistant or suitably treated to resist corrosion.
5. Plastic surfaces shall be free from ripples and thin spots and have a bright colorfast appearance.
6. **PRODUCT REQUIREMENTS**
7. General

The pupil table is defined as a table supported by a frame or structure and or legs constructed from square or round steel. Leg styles shall be a straight and/or tapered type, or pedestal type as categorized in Section III "Classification". Book storage shall be provided underneath the tabletop. There are two types of tables required, **Type I** is defined as "Closed containment, open front" and **Type II** is defined as "Open containment, open front".

**Type I,** the "Closed containment" book storage type (Closed type). The book storage enclosure shall be constructed of solid sheet metal with all sides, bottom, and back closed. The front shall be open for the entire width to enable easy access for book storage. Type I has three styles of construction.

**Style A** - Leg base with metal tubular frame. The frame shall be constructed from tubing, which is formed, bent, and/or welded together.

**Style B** - Pedestal base.

**Style C** - Leg base with unit body construction.Legs are not part of a structural tubing frame system, but instead are straight tubing (unbent) sections held in position by part of the body of the table, such as a sheet metal box which is welded to the legs at each corner. The box material thickness and method of leg attachment shall be such that it provides a stable rigid unit suitable for a classroom application. Leg bracing to achieve this rigidity is acceptable.

**Type II,** the "Open containment" book storage type (Open type) shall be constructed from 1/4-inch diameter minimum steel rods welded together and attached to the table structure or table top under side. This takes the form of a rack or basket design. This rack or basket storage shall be designed to enable easy front access, while containing the books at the back. Containment on sides is acceptable. The rack or basket shall be free from sharp, rough edges, or protruding parts that might snag clothing or cause injury. Type II has only one style of construction.

**Style A** - Leg base with metal tubular frame. The frame shall be constructed from tubing, which is formed, bent, and/or welded together.

1. Table Top

The shape of the tabletop shall be rectangular and have a minimum surface area of 430 sq. inches. Tablet tops may be either Solid Thermoset plastic, or HPL surfaced with any of the following optional core materials, resin board, fiberboard, particleboard or plywood as required in the Invitation for Bid. The thickness shall be a minimum of 9/16 inch. The edges shall be shaped and rounded, and the corners shall be rounded; edges shall be sealed. The top surface shall resist stains, scratches, burns, and be non-porous. Resin board, Fiber board, Particle board or Plywood core tablet arms shall be surfaced with a HPL plastic writing surface which must comply with NEMA LD 3 (Latest Date Revision) Grade GP 28 or better. LPL plastic (Low pressure laminate) is not an acceptable alternative material. The bottom of the tablet shall have a backing sheet.

The height of the table is defined as the distance from the floor to the top surface of the table measured perpendicular to the floor. For the fixed height table this measurement shall be not less than 21 inches and not greater than 30 inches. Vendor to specify the heights offered when submitting the bid. Tables with adjustable heights (Type I Style A.2 B.2. & C.2, Type II Style A.2) shall be adjustable to provide incremental table heights ranging from 21 inches to 30 inches (nominal).

The definition of Thermoset plastic is; A material having properties of becoming permanently hard and rigid when heated and cured. It is capable of changing from a plastic or fusible state by a chemical reaction effected by heat or other means, leading to a complex polymer.

1. Glides

Glides shall be steel-cushioned, nylon or all steel and be of the "boot" (ferrule) design. There shall be a minimum of one retaining clip or heavy-duty pressure ring holding the booted glide within the leg tubing. Glides shall be a self-leveling swivel type design. The outside diameter of the glide pad that contacts the floor shall be 3/4 inch minimum. Glides shall not be easily removed without the use of tools.

1. Finish (Metal parts) and structure.

Product should be available either painted **or** chrome plated as a unit, or painted **and** chrome plated as a unit as required in the Invitation for Bids

* + - 1. **Painted:** All painted surfaces shall be thoroughly cleaned and free of dirt, oil, grease, moisture, or other foreign matter prior to painting.

After cleaning, the frame shall be coated with a paint- bond coating and a rust inhibitor compatible with the top or finish coat. The finish coat shall consist of a high temperature enamel applied and baked in accordance with the paint manufacturer's recommendations (or the manufacturer's standard acrylic/epoxy-based enamel coating of comparable quality). The enamel shall be the non-chipping type. There shall be no indication of rust, or decay, under the coating. An equivalent thermoset epoxy resin dry powder coating, electro-statically applied, shall also be acceptable.

* + - 1. **Chrome Plated:** All metal which is to be chrome plated shall be subjected to the manufacturer's standard electrical and chemical cleaning process. Chrome shall be plated over a Nickel base. The chrome shall be corrosion and chip resistant.
      2. **Structural Requirements:** Legs and related attachments shall have the gauge thickness and strength properties, of the steel selected, to provide a structure that will withstand the continuous normal loads found in a daily classroom environment.

The chair must successfully complete the performance test as defined in ANSI/BIFMA X5.5, latest revision. Tests must be performed by an independent testing laboratory.

**5.5.5 Desks, Teacher's, Metal**

This specification establishes requirements for steel frame Teacher Desks, with single and double pedestal design.

1. **CLASSIFICATION**
2. Teacher Desks covered by this specification shall be classified as follows:

|  |  |
| --- | --- |
| A picture containing furniture, table, console table  Description automatically generated | **No graphic available** |
| TYPE I | TYPE II |

Type I: Metal Frame with SINGLE PEDESTAL.

Type II: Metal Frame with DOUBLE PEDESTAL.

1. The defined product requirements herein are not intended to include all varieties of the commodity as indicated by the title of this document, or which may be commercially available, but is intended to cover only those commonly used by state agencies and the public schools. Listing of a product is not intended to and does not connote endorsement of the product by the state.
2. **APPLICABLE SPECIFICATIONS AND STANDARDS**

Reference to specifications, standards, test methods, and other documents shall be to the issues in effect on the date of the IFB. Copies of the referenced documents may be obtained from the issuing organizations. The following documents and / or publications form a part of this specification to the extent specified herein:

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

* ANSI A208.1 - Particleboard.
* ANSI/HPMA HP - Hardwood and Decorative Plywood.
* ANSI A208.2 – Medium Density Fiberboard (MDF)

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

* ASTM D 1037 - Method for Evaluating properties of wood base Fiber and Particle panel materials.

FEDERAL SPECIFICATIONS.

* L-P 5089 - Plastic sheet, laminated, decorative and non-decorative.
* LLL-B-810 - Building board (Hardboard) Hard pressed vegetable fiber.
* TT-C-490 - Cleaning methods for ferrous surfaces and pre-treatments for organic coatings.

IRON AND STEEL SOCIETY (ISS).

* Steel sheet manual.

NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION (NEMA).

* LD-3 - High-pressure Laminate.

1. **GENERAL REQUIREMENTS**
2. Products furnished per this document shall meet or exceed the following requirements:
   * + 1. All desks shall be new, unused, and a currently standard product of an established manufacturer.
3. All desks shall present a neat, well-finished appearance inside and outside and shall be free from all imperfections and/or defects which might affect appearance, normal life, safety, or serviceability.
4. All metal parts shall be inherently corrosion resistant, or suitably treated to resist corrosion.
5. Plastic surfaces shall be free from ripples and thin spots and have a bright color fast appearance.
6. **PRODUCT REQUIREMENTS**
7. General

Teacher desks shall be either single (Type I) or double pedestal (Type II) locking type and shall have steel supporting frame and drawer construction plus a steel modesty panel.

1. **DRAWERS**: Each pedestal shall have one box drawer and one file drawer.
2. The box drawer shall have inside slots or equivalent feature to provide adjustable partitions. It shall have a smooth non-racking operation and slide on nylon or equivalent bearings.
3. The File drawer shall have a full cradle suspension with ball, roller or nylon bearings for smooth non-racking action and enable drawer to fully open.
4. A knee or central drawer shall be steel and provide pencil / pen partition.
5. **DESKTOP:**
6. The size of TYPE I desk top surface shall be 30 inches x 48 inches and rectangular in shape. The size of TYPE II desk top surface shall be 30 inches x 60 inches and rectangular in shape.
7. The thickness shall be a minimum of 1 1/8 inch.
8. The edges shall be shaped and rounded, and the corners shall be rounded; edges shall be sealed.
9. The desktops shall be resin core, particle board or plywood. The top surface shall resist stains, scratches, burns, and be non-porous. Particle board (45 LB. per cu. ft.) or plywood core Tabletops shall have laminated construction consisting of HPL decorative plastic surface, complying with NEMA GP28 (0.028 thick). The bottom shall have a backing sheet.
10. Tabletop edges shall be either banded with the same HPL plastic (as top surface material) or protected with a "T" molding. If a "T" molding is used it shall be a flexible, non-brittle vinyl "T" or "Bullnose" molding and attached by a barbed tongue, that is self-locking into a groove around the edge of the laminated tabletop. The molding shall be pinned or secured in addition to the self-locking feature to provide an extra precaution against "pull out". Vulnerable areas such as corners and peripheral joins must be provided with this extra precautionary feature.
11. The tabletop to pedestal support attachment method shall be so designed to provide a strong solid union that will not loosen under normal classroom use. The hardware (screws) for attaching the pedestal to a top constructed from particle board must be of the type specially designed for use with particle board (Wood screws are not permitted). Another acceptable method is threaded metal inserts imbedded into the underside of the tabletop.
12. The height of the desk is defined as the distance from the floor to the top surface of the desk measured perpendicular to the floor. This height shall be not less than 28 inches and not greater than 30 inches.
13. Tables shall be equipped with rustproof self-leveling glides, with at least one glide to be adjustable.
14. **GLIDES**

Glides shall be steel-cushioned, or nylon, or all steel, and be of the "boot" (ferrule) design. There shall be a minimum of one retaining clip or heavy-duty pressure ring holding the booted glide within the leg tubing. Glides shall have a self-leveling swivel design. The outside diameter of the glide pad that contacts the floor shall be 3/4 inch minimum. Glides shall not be easily removed without the use of tools.

1. **FINISH (Metal Parts)**

The frame and leg support structure can be either painted or chrome plated. The pedestal(s) and sheet metal panels shall be painted.

1. **Painted:** All painted surfaces shall be thoroughly cleaned and free of dirt, oil, grease, moisture, or other foreign matter prior to painting.

After cleaning, the surfaces shall be coated with a paint- bond coating and a rust inhibitor compatible with the top or finish coat. The finish coat shall consist of high temperature enamel applied and baked in accordance with the paint manufacturer's recommendations (or the manufacturer's standard acrylic/epoxy-based enamel coating of comparable quality). The enamel shall be the non-chipping type. There shall be no indication of rust or decay under the coating. An equivalent thermoset epoxy resin dry powder coating, electro-statically applied, shall also be acceptable.

1. **Chrome Plated:** All metals which are to be chrome plated shall be treated by the manufacturer's standard electrical and chemical cleaning process. Chrome shall be plated over a Nickel base. The chrome shall be corrosion and chip resistant.

**5.5.6 Tables, General Purpose, Metal**

This specification establishes requirements for General purpose metal frame tables for use in school and college classrooms, and institutions. There are three basic types of table configurations covered in this section.

1. Leg Base

2. Leg base with apron and leg brace

3. Pedestal Base

Within these types there are sub-categories to include Fixed and adjustable legs.

The shape and size of the Tabletops when combined with the leg types shall provide the different styles required. The following list includes the most commonly used shapes of Tabletops; Rectangular, Round, Half round, Square, Trapezoidal, Kidney.

1. **CLASSIFICATION**
2. General purpose tables covered by this specification shall be classified as follows:

Type I: LEG BASE, FIXED HEIGHT.

Style A - Rectangular top.

Style B - Round top.

Style C - Square top.

Style D - Trapezoidal top.

Style E - Kidney top.

Type II: LEG BASE, ADJUSTABLE HEIGHT.

Style A - Rectangular top.

Style B - Round top.

Style C - Square top.

Style D - Trapezoidal top.

Style E - Kidney top.

Type III: APRON, and CORNER BRACED, FIXED HEIGHT.

Style A - Rectangular top.

Style B - Round top.

Style C - Square top.

Type IV: SINGLE PEDESTAL, FIXED HEIGHT.

Style A - Rectangular top.

Style B - Round top.

Style C - Square top.

Type V: DOUBLE PEDESTAL, ADJUSTABLE HEIGHT.

Style A - Rectangular top.

1. A style may be approved and identified by a Series Number when the basic table design and construction is the same, with the variation being the size of the top. Vendor to specify sizes of the tabletop available within the Series designation. If a manufacturers Series Number includes other furniture than tables as described herein, those "other" items are not included in this listing. Approval of the tables within a series does not indicate that the other furniture is also approved or listed. If a Series number is not available each item part number shall be listed. The actual sizes required are to be specified in the IFB.
2. The tables defined in this document are intended to cover a consolidation of movable tables for general purpose use in classrooms. The defined product requirements herein are not intended to include all varieties of the commodity as indicated by the title of this document, or which may be commercially available, but is intended to cover only those commonly used by state agencies and the public schools. Listing of a product is not intended to and does not connote endorsement of the product by the state.
3. **APPLICABLE SPECIFICATIONS AND STANDARDS**

Reference to specifications, standards, test methods, and other documents shall be to the issues in effect on the date of the IFB. Copies of the referenced documents may be obtained from the issuing organizations. The following documents and / or publications form a part of this specification to the extent specified herein:

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

* ANSI A208.1 - Particleboard.
* ANSI/HPMA HP - Hardwood and Decorative Plywood.
* ANSI A208.2 – Medium Density Fiberboard (MDF)

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

* ASTM D 1037 - Method for Evaluating properties of wood base Fiber and Particle panel materials.

FEDERAL SPECIFICATIONS.

* L-P 5089 - Plastic sheet, laminated, decorative and non-decorative.
* LLL-B-810 - Building board (Hardboard) Hard pressed vegetable fiber.
* TT-C-490 - Cleaning methods for ferrous surfaces and pretreatments for organic coatings.

IRON AND STEEL SOCIETY (ISS).

* Steel sheet manual.

NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION (NEMA).

* LD-3 - High-pressure Laminate.

1. **GENERAL REQUIREMENTS.**
2. Products furnished per this document shall meet or exceed the following requirements:
   * + 1. All tables shall be new, unused, and a currently standard product of an established manufacturer except for such deviations as may be required by this document or the Invitation for Bids.
       2. All tables shall present a neat, well-finished appearance inside and outside and shall be free from all imperfections and/or defects which might affect appearance, normal life, safety or serviceability.
       3. All metal parts shall be commercial quality and inherently corrosion resistant, or suitably treated to resist corrosion.
       4. Plastic surfaces shall be free from ripples and thin spots and have a bright color fast appearance.
3. **PRODUCT REQUIREMENTS**
4. General

This specification covers General Purpose Tables with the top surface shaped in five different styles (Styles A - E). These tops are supported by 3 types of fixed and/or adjustable height legs or leg support structures (Type I Leg base, fixed height; Type II Leg base, adjustable height; Type III Leg base with apron, fixed height; Type IV Single Pedestal, fixed height, Type V Double Pedestal, adjustable height).

The height of the table is defined as the distance from the floor to the top surface of the table measured perpendicular to the floor. For the fixed height table this measurement shall be not less than 28 inches and not greater than 30 inches. Tables with adjustable heights shall be adjustable to provide table heights ranging from 21 inches to 30 inches (nominal). Locking or Set screws (where applicable) used in the adjustable leg design should have a torquing head that enables the screw to be tightened / loosened by using a Phillips screwdriver, Allen, Star, or "Tork" wrench.

1. Leg base, Type I & II

The Leg base table is defined as a table supported by legs constructed from square or round tubular steel. The leg shall be fixed, non-adjustable height (Type I) or adjustable height (Type II).

The leg shall be a straight or tapered type.

The size, sectional modulus and gauge thickness of the leg structure shall be designed to provide a stable, rigid, and non-racking table under normal classroom use.

The legs shall be welded to a mounting plate. For added rigidity, two 1/4" minimum diameter rods shall be welded to the leg and mounting plate. This plate must then fit into a mating plate attached to the underside of the table. A retaining lip secures the leg assembly on two sides of the plate with mounting screws locking it in place. (This is commonly known as a "quick knock-down" bracket).

1. Leg base with Apron, Type III

The Leg base with apron table is defined as a table supported by legs constructed from tubular steel with a peripheral sheet metal apron attached to the legs and the underside of the table top. The legs shall be fixed, non-adjustable height (Type III).

The leg shall be a straight or tapered type.

The size, sectional modulus and gauge thickness of the leg/apron structure shall be designed to provide a stable, rigid, and non-racking table under normal classroom use.

1. Single Pedestal, Type IV

The Single/Center Pedestal table is defined as a table supported by a metal center column or pedestal attached to a base consisting of 4 or more equi-spaced horizontal "feet". The Pedestal shall be fixed, non-adjustable height (Type IV). The pedestal shall be a one-piece welded construction.

1. Double Pedestal, Type V

The Double Pedestal table is defined as a table supported by two pedestals coupled together with a lateral beam member. Each pedestal has its own base which has horizontal "feet". These "feet" must provide stability and prevent the table from tipping over. The Pedestals shall provide for adjustable tabletop height (Type V).

The size, sectional modulus and gauge thickness of the metal used in the manufacture of the pedestals, base, feet and attaching interface structure shall be designed to provide a stable, rigid, and non-racking table under normal classroom use.

1. Tabletop (Applies to all table types and styles)

The Style of the tabletop defines its shape.

The materials & construction of the tabletop are defined as follows:

Tabletops shall be resin core, particle board or plywood. The thickness shall be a minimum of 1 3/16 inch.

The edges shall be shaped and rounded, and the corners shall be rounded.

The top surface shall resist stains, scratches, burns, and be non-porous.

Particle board (45 LB. per cu. ft.) or plywood core Tabletops shall have laminated construction consisting of HPL decorative plastic surface, complying with NEMA GP28 (0.028 thick). Low pressure laminate (LPL) is not acceptable. The bottom shall have a backing sheet.

A flexible, non-brittle vinyl "T" or "Bull nose" molding shall be attached by a barbed tongue, that is self-lockingself-locking into a groove around the edge of the laminated tabletop. The molding shall be pinned or secured in addition to the self-lockingself-locking feature to provide an extra precaution against "pull out". Vulnerable areas such as corners and peripheral joins must be provided with this extra precautionary feature.

Top deflection shall be kept to a minimum. Rectangular tables (Type I & Type II), 48 inches or greater in length shall be equipped with a metal stretcher for longitudinal support.

The tabletop to leg support structure attachment method shall be so designed to provide a strong solid union that will not loosen under normal classroom use. The hardware (screws) for attaching the leg or support mounting plates to a top constructed from particle board must be of the type specially designed for use with particle board (Wood screws are not permitted). Another acceptable method is threaded metal inserts imbedded into the underside of the tabletop.

1. Glides (Applies to all Table Types & Styles)

Glides shall be steel-cushioned, or nylon, or all steel, and or be of the "boot" (ferrule) design. There shall be a minimum of one retaining clip or heavy-duty pressure ring holding the booted glide within the leg tubing. Glides shall be a self-leveling swivel design. The outside diameter of the glide pad that contacts the floor shall be 3/4 inch minimum. Glides shall not be easily removed without the use of tools.

1. Finish (Metal parts)

Colors and finishes shall be the manufacturer's standard. All metal finishes shall be compatible with the tabletop colors.

1. **Painted:** All painted surfaces shall be thoroughly cleaned and free of dirt, oil, grease, moisture, or other foreign matter prior to painting.

After cleaning, the frame shall be coated with a paint- bond coating and a rust inhibitor compatible with the top or finish coat. The finish coat shall consist of a high temperature enamel applied and baked in accordance with the paint manufacturer's recommendations (or the manufacturer's standard acrylic/epoxy-based enamel coating of comparable quality). The enamel shall be the non-chipping type. There shall be no indication of rust, or decay, under the coating. An equivalent thermoset epoxy resin dry powder coating, electro-statically applied, shall also be acceptable.

1. **Chrome Plated:** All metal which is to be chrome plated shall be treated by the manufacturer's standard electrical and chemical cleaning process. Chrome shall be plated over a Nickel base. The chrome shall be corrosion and chip resistant.
2. Optional Accessories
3. **Book Boxes:** Single, double or triple book boxes may be required. They must be of sturdy and rugged construction and attached to the underside of the tabletop with appropriate mechanical fasteners. The book box design and finishes shall be compatible with the table design and finish. This option is to be specified in the IFB.
4. **Tote Trays and Runners:** Tote Trays and runners may be required. They must be of sturdy and rugged construction and attached to the underside of the tabletop with appropriate mechanical fasteners. The Tote Tray design and finishes shall be compatible with the table design and finish. This option is to be specified in the IFB.

**5.5.7 Tables, Computer, Classroom**

This specification establishes requirements for Economy tables that can be used for computer terminal placement in school and college classrooms, and institutions. These tables meet the need for a economical simple, clean work surface with limited wire containment. These products are not considered part of a modular workstation group that is typically used in an office environment. No peripheral matching components are covered.

1. **CLASSIFICATION**
2. General purpose tables covered by this specification shall be classified as follows:

Type I DOUBLE PEDESTAL, FIXED HEIGHT, WITH GROMMENTS IN TOP

Type Ia DOUBLE PEDESTAL, FIXED HEIGHT, WITH FLIPPER LID

Type II APRON & CORNER BRACED, WITH GROMMETS IN TOP

Type IIa APRON & CORNER BRACED, WITH FLIPPER LID

Type III PANEL END, FIXED HEIGHT, WITH GROMMETS IN TOP

Type IIIa PANEL END, FIXED HEIGHT, WITH FLIPPER LID

|  |  |  |
| --- | --- | --- |
| A picture containing text, table, furniture, worktable  Description automatically generated | A picture containing table  Description automatically generated | A picture containing text, furniture, table, worktable  Description automatically generated |
| Type1 | Type II | Type III |

1. A type may be approved and identified by a Series Number when the basic table design and construction is the same, with the variation being the size and shape of the top. Vendor to specify sizes of the tabletop available within the Series designation. If a manufacturers Series Number includes other furniture than tables as described herein, those "other" items are not included in this listing. Approval of the tables within a series does not indicate that the other furniture is also approved or listed. If a Series number is not available each item part number shall be listed. The actual sizes required are to be specified in the IFB.
2. The tables defined in this document are intended to cover the need for an economy table, with a built-in cable tray, for computer placement in classrooms. The defined product requirements herein are not intended to include all varieties of the commodity as indicated by the title of this document, or which may be commercially available, but is intended to cover only those commonly used by state agencies and the public schools. Listing of a product is not intended to and does not connote endorsement of the product by the state.
3. All tables offered shall be new and the latest production model as represented in the Manufacturer's current published literature intended for the general public. The specific configuration, construction and materials must be represented in such literature. The basic table offered must meet all the requirements of this specification without the addition of any manufacturer's published optional "add-ons". Tables that fail to meet these requirements will be rejected.
4. **APPLICABLE SPECIFICATIONS AND STANDARDS**

Reference to specifications, standards, test methods, and other documents shall be to the issues in effect on the date of the IFB. Copies of the referenced documents may be obtained from the issuing organizations. The following documents and / or publications form a part of this specification to the extent specified herein:

NEMA (NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION)

* LD-3 - High-pressure Laminate.

ANSI

* ANSI A208.1 - Particleboard.
* ANSI/HPMA HP - Hardwood and Decorative Plywood.
* ANSI A208.2 – Medium Density Fiberboard (MDF)

1. **REQUIREMENTS**
2. General
3. This specification covers Computer Terminal Tables with the top surface shaped primarily rectangular. Other geometric top surface shapes can be provided to enable small satellite table groupings. These tops are supported by 3 types of leg or leg support structures (Type I Double Pedestal, fixed height. Type II Leg base with apron, Type III End panel, fixed height).
4. The height of the table is defined as the distance from the floor to the top surface of the table measured perpendicular to the floor. Fixed height tables shall be not less than 25 inches and not greater than 30 inches. A modesty panel shall be available for all Double Pedestal and Apron and Corner Braced types. Slots or holes (with grommets) machined in the top work surface, or flipper lids, shall be provided as specified in the CLASSIFICATION section for the particular category.
5. The construction shall be the manufacturer’s standard and shall not be altered specifically for the State of North Carolina.
6. “Cam-lock” fastening devices are not permitted in the construction of computer tables specified herein.
7. Type I, Double Pedestal
8. The Double Pedestal table is defined as a table supported by two pedestals coupled together with a lateral beam member. Each pedestal has its own base which has horizontal "feet". These "feet" must provide stability and prevent the table from tipping over with the added weight of Computer equipment. The Pedestals shall be fixed (non-adjustable height).
9. The size, sectional modulus and gauge thickness of the metal used in the manufacture of the pedestals, base, feet and attaching interface structure shall be designed to provide a stable, rigid, and non-racking table under normal classroom use. The "feet" shall be welded to the upright member/s. A modesty panel shall be provided.
10. Type II, Leg Base with Apron
11. The Leg base, with apron, table is defined as a table supported by legs constructed from tubular steel with a peripheral sheet metal apron attached to the legs and the underside of the tabletop.
12. The legs shall be a straight or tapered type, and of fixed height. The size, sectional modulus and gauge thickness of the leg/apron structure shall be designed to provide a stable, rigid, and non-racking table under normal classroom use. A modesty panel shall be provided.
13. Type III, Panel End
14. Support End Panels shall be a minimum of 3/4" in thickness (minimum).
15. The core material of the end panel shall be either: Particle board (minimum density of 45 lb. cu. ft.) or, Multiple ply plywood or, Lumber core, or Fiberboard (minimum density of 45 lb. cu. ft.)
16. End Panel surfaces shall be finished with either: High-pressure plastic laminate, minimum NEMA GP28 (0.28" thick), or Low-pressure plastic laminate. Both faces of end panels shall be treated as decorative surfaces therefore they shall be laminated with the finish plastic. Banding or edging used on end panel edges shall be flush with the top surface of the table, unless raised end panels are used.
17. Modesty panel shall be 1/2" inch thickness (minimum) manufactured from the same material as the end panels.
18. Exposed core material is not permitted. All bottom edges of the modesty panel and leg panels shall be sealed with appropriate edging material to prevent moisture penetration of the core material.
19. Tabletop (Applies to all table types)
20. The tabletop surface shape shall be rectangular. Optional geometric shapes may be made available. The minimum effective depth shall be 24" (nominal) (Not including flipper lids, when used).
21. The top shall be 1" thickness (minimum) particle board (45 Lb. per cu ft. minimum), or plywood core with high-pressure plastic laminate finish.
22. The edges shall be shaped and rounded. The top surface shall resist stains, scratches, burns, and be non-porous.
23. Tabletops shall have laminated construction consisting of HPL decorative plastic surface, complying with NEMA GP28 (0.028" thick minimum). Low pressure laminate (LPL) is not acceptable. The underside shall have a backing sheet.
24. The edges of the table shall be protected by a durable edging securely glued in place. If "T" or "Bull Nose" molding is used, the molding shall be pinned or secured in addition to the self-locking feature to provide an extra precaution against "pull out". Vulnerable areas such as corners and peripheral joins must be provided with this extra precautionary feature. An acceptable alternative method of protecting the table edge is to postform the high-pressure laminate top over a radiused edge. Solid hardwood edge banding is also acceptable.
25. Top deflection shall be kept to a minimum. Rectangular tables, 60 inches or greater in length shall be equipped with a metal stretcher for longitudinal support or an alternate means of preventing worksurface sag. The apron on tables (Type II) can provide this longitudinal support if designed for the application.
26. The tabletop to leg support structure attachment method shall be so designed to provide a strong solid union that will not loosen under normal classroom use. The hardware (screws) for attaching the leg or support mounting plates to a top constructed from particle board must be of the type specially designed for use with particle board (Wood screws are not permitted). Another acceptable method is threaded metal inserts imbedded into the underside of the tabletop.
27. The table can be provided with a printer paper feed slot (2" x 17" inches (nominal)as an option. The slot shall have a rubber or plastic grommet to protect the paper. Option to be specified in the Invitation for Bid.
28. Cable Management

The tables shall be provided with built-in Cable Management Trays running the approximate full length of the table. They shall provide a minimum of 15 sq. in. of cable storage (when viewed from the end of the tray). They shall be 5" deep minimum inside dimensions. They must be of sturdy and rugged construction, free from sharp edges. If the trays have closed ends they must have a plastic grommet (in each end) for cable access. If the tray has open ends, the ends must have grommets, or other means, to protect the cables from damage. Cable "pass-thru" grommets are required in end panels of Type III & IIIa tables.

Cables from the computers and their peripherals shall access the cable tray through either grommets located in the tabletop or a continuous flipper type hinged lid (Type identified by a suffix "a") built into the worksurface top (See sketch below).

Diagram, schematic

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Sketch shown to represent the "Flipper hinged lid" and cable tray arrangement.

On the latter, the slot between the lid and the worksurface shall have a flexible filler gasket to prevent debris from falling into the tray while still allowing cables to pass through. The gasket material shall be rugged, bonded and/or pinned to prevent pullout as experienced in a classroom environment.

All edges of the lid and adjacent tabletop shall be sealed with the appropriate edging to prevent moisture penetration of the core material. The flipper door hinges shall be hidden. Hinges shall be of the "European", or "Apron" type. A minimum of three (3) hinges are required on tables 60" or greater in length.

These tables shall have the capability of being placed side by side (in groups) for "flow-through" cabling to adjacent tables.

The cable tray shall be located under the tabletop (front). The tray design and finishes shall be compatible with the table design and finish. The cable tray shall be a minimum of 5" deep. Electrical outlets are not required.

1. Glides (Applies to all Table Types)

Glides shall be steel-cushioned, or nylon, or all steel, and or be of the "boot" (ferrule) design. There shall be a minimum of one retaining clip or heavy-duty pressure ring holding the booted glide within the leg tubing. Glides shall have a self leveling swivel design. The outside diameter of the glide pad that contacts the floor shall be one (1) inch minimum. Glide inserts shall not be removable without the use of special tools. If glides are inserted into particleboard or fiberboard re-enforcement must be provided to prevent pull out.

1. Finish (Metal Parts)
2. All metal colors and finishes shall be the manufacturer's standard. All metal finishes shall be compatible with the tabletop colors.
3. All painted surfaces shall be thoroughly cleaned and free of dirt, oil, grease, moisture, or other foreign matter prior to painting. After cleaning, the frame shall be coated with a paint- bond coating and a rust inhibitor compatible with the top or finish coat. The finish coat shall consist of a high temperature enamel applied and baked in accordance with the paint manufacturer's recommendations (or the manufacturer's standard acrylic/epoxy-based enamel coating of comparable quality). The enamel shall be the non-chipping type. There shall be no indication of rust or decay under the coating. An equivalent thermoset epoxy resin dry powder coating, electrostatically applied, shall also be acceptable.
4. All electroplated chrome finishes shall be in accordance with best industry standards for electrical and chemical cleaning processes. Chrome shall be plated over a Nickel base. The chrome shall be corrosion and chip resistant.
5. Optional Accessories

**Book Boxes:** Single, double, or triple book boxes may be required. They must be of sturdy metal construction and attached to the underside of the table top with appropriate mechanical fasteners. The book box design and finishes shall be compatible with the table design and finish. This option is to be specified in the IFB.

**5.5.8 Furniture, Library (MEDIA CENTER), Wooden**

This specification covers wood constructed (unless otherwise specified) Media center (library) furniture items, such as circulation desks, tables, shelving, carrels, and other items of furniture used by public school libraries, institutions, college, and university libraries. It is not intended to cover all types and grades of media center furniture, but only the styles and designs most frequently purchased. Any special types or designs of media center furniture, such as for handicapped persons, are to be included in the Invitation for Bid.

IMPORTANT: All Library Furniture shall be the manufacturer’s current standard production model and shall be represented as such in the manufacturer’s current published literature and current price book. The State at its sole discretion may accept or reject products that are priced in a published document other than the manufacturer’s current price book (e.g. models which are listed in a published price book supplement rather than the current price book itself). In addition, each product offered on the bid must have been in production for one (1) full year before the deadline for submittals associated with this specification. The State, at its option, may require certified documentation from the manufacturer to verify the claimed length of production time. Any product which does not comply with these requirements shall not be acceptable. Consistent with the State’s intent to solicit product lines which provide Entities a maximum choice of styles, it is necessary that the manufacturer submit requested information for each of the classifications specified herein.

1. **CLASSIFICATION**
2. The media center furniture covered in this specification is defined in the following paragraphs. The main paragraph section titled General Requirements applies to all products unless otherwise stated.
3. The following is an item listing of the type of furniture covered in this specification. The manufacturer must furnish, as a minimum, items 1-8 of this section.
4. Circulation Desk including cabinets
5. Wood and Metal (not mandatory) Shelving Units
6. Tables
7. Index tables
8. Reading and study tables
9. Sloped tables
10. Carrels
11. Carrel tables
12. Modular study carrels
13. Display racks
14. Newspaper rack
15. Magazine racks
16. Book Displayer
17. Record Displayer
18. Paperback Displayer
19. Tower Display units
20. Vertical Display units
21. Companion pieces and other items
22. Dictionary Stand and Revolving Dictionary Book Stand
23. Atlas Stand
24. Book Trucks
25. Book shelf truck
26. Book Truck service
27. Book display truck
28. Paperback display truck
29. Picture book shelf truck
30. Depressed book truck
31. Computer Stations
32. Computer Work Stations
33. Printer Stand
34. Classification
35. The media center furniture covered in this specification is classified by style, and type.
36. The definition of Style is the artistic design of the product
37. The definition of Type is the type of manufacturing construction design
38. The style required is **Contemporary**

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| **Type 1. Panel end** | **Type 2. Leg base** |

1. Two Types are covered by this specification. They are Panel end Type 1 and Leg base Type 2
2. The sketches above are intended to show the basic difference between the leg and panel end designs. (a single carrel unit is shown to illustrate this). The furniture may be approved as a model series or as individual pieces. It is not the intent of this specification to limit the Entity solely to either, in any single application. Each item stands alone on its own merit. For example, it is acceptable to specify leg tables with a panel end dictionary stand if the Entity desires.
3. **APPLICABLE STANDARDS**

The following documents of issue in effect on the date of the Invitation for Bids shall form a part of this specification to the extent specified:

NEMA (NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION)

1. NEMA LD-3 High-pressure Decorative Laminates

ANSI

1. ANSI - A-208.1 – Particleboard, Mat-Formed Wood, 2022 Edition
2. ASTM – A1008 – Cold Rolled Steel
3. **CONSTRUCTION REQUIREMENTS**
4. **General**
5. These paragraphs (General) define the basic sizes, types, construction, materials and finishes required for all furniture covered by this specification. These requirements must be met unless otherwise stated in the individual item design description. All dimensions are in inches.
6. All material, construction and assembly of the media center furniture described herein shall be of a quality generally associated with high level standards of the media center furniture industry.
7. Where companion items are not covered by this specification but called for in the Invitation for Bids, the intent is for the Vendor to quote on items of comparable quality and appearance to those specifically described herein. The companion items are to be those the manufacturer normally offers to the public in the same series as those described herein.
8. Any questions concerning acceptability of the quality offered shall be the sole decision of the Division of Purchase and Contract.
9. The material, construction, assembly and finish of the product shall be in accordance with good commercial practices, and entirely suitable for the purpose intended. All exposed parts shall be free of machine marks and smoothly sanded in preparation for the finish. The finished product shall exhibit good workmanship throughout.
10. **Materials**
11. Exposed solid wood parts shall be of selected northern red oak, or maple, and of the same species as the veneer or the wood grain pattern of the high-pressure plastic laminate work surfaces that are called for in the Invitation for Bids. This applies to all wood or veneer exterior construction, with structural frames of either wood or metal. An exception is with shelving (See paragraph V Shelving requirements). Marinte Luan Plywood species is not acceptable.
12. **Solid Woods**

* All solid wood used in furniture construction shall be selected from structurally sound stock, free from such defects as visible splits, knots, checks or decay. The wood shall be properly kiln dried and conditioned to a moisture content of 7% to 9%. Exposed solid wood shall be selected at the time of assembly for uniformity of grain and color
* Unexposed solid wood parts may be of suitable hardwoods. Wood panels used for core stock shall be made up of random widths no less than 1" and not more than 4"

1. **Wood Veneers**
2. The wood veneer species shall be plain sliced, and either oak or maple ***as specified in the Invitation for Bids***. They shall be carefully selected for uniformity of grain and color, and also selected to eliminate wild grain patterns and gross figures. There shall not be wide variations of patterns between companion pieces. The finished appearance of all exposed veneer surfaces shall be free of any detectable telegraphing of substrate, sand through, or adhesive bleed through.
3. Unexposed wood veneers may be of any suitable species of hardwood.
4. **Plywood**
5. Plywood shall be of balanced cross-banded construction, with cores free of structural defects, and assembled with a moisture-resistant resin adhesive.
6. **Core Material**
7. Cores may be of the following types, as specified herein for this application.
8. Lumber cores shall be of good grade core stock in random widths of 1" to 4", straight, flat and squared edged before gluing. Discoloration, sound knots, and all defects that are properly patched or filled are acceptable.
9. Particleboard cores shall be made of wood chips, bonded with a moisture-resistant adhesive, and with a minimum density of 45-lbs/cu. ft.
10. Fiberboard cores shall be made from pressed fibers of wood, and with a minimum density of 45-lbs/cu. ft.
11. Multiple veneer cores shall be made of hardwood and bonded with a moisture-resistant adhesive.
12. **Plastic Laminates**
13. Where defined in this specification or in the IFB Plastic laminates on Tabletops, tops of shelving 60" or lower in height, and tops for charging desk units or other work surfaces, shall be high-pressure plastic laminate and comply with the requirements of NEMA LD-3, grade GP-50. Balancing sheet (backers) shall be at least grade BK-20.
14. The use of Low-pressure plastic laminates is ***not*** acceptable.
15. When simulated wood finish is furnished, the laminate and wood parts shall be matched for grain and color.
16. **Hardware**
17. Trim hardware shall be of a design and quality to meet the requirements of institutional furniture and equipment. The trim hardware finish shall be coordinated with the decor of the furniture.
18. Construction hardware such as fasteners, hinges, glides, casters, drawer pulls, locks, drawer stops, shall be of a durable quality and meet the operational requirements of institutional furniture. Two keys shall be furnished with locks.
19. Floor Protection Glides (such as those provided on the base of table legs) shall be adjustable and the component that is in contact with the floor is manufactured from a non-rusting material. The intent is to prevent the floor material from being marred, stained, or discolored.
20. **Finish**
21. All wood parts shall be properly sanded to a smooth finish before assembly. After assembly and before finishing, all excess glue shall be removed and all rough spots, dents, and scratches, shall be removed by hand sanding with the proper grit size paper. The entire piece shall have a smooth and proper surface to receive the finish. The components of assembled items shall have a matching finish where exposed.
22. The finishing materials shall be of top quality, and they shall be obtained from a reputable supplier to the furniture industry. Non-catalyzed nitrocellulose lacquer is not acceptable. The topcoat shall be highly resistant to abrasion, scuffing, sunlight, boiling water, alcohol, nail polish remover, mustard, ketchup, tea, ink, soft drinks, and juices.
23. Unless specified otherwise, the finish colors shall be the manufacturer's standard colors. The finish shall be composed of applications of compatible materials that are properly applied and processed to give a high quality furniture finish.
24. Metal parts shall be stainless steel, chrome plated, or coated with epoxy or acrylic enamel paint.
25. **Circulation Desk Requirements**

**Diagram, engineering drawing

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1. **Circulation Desk**
2. **The Circulation Desk** shall be a Contemporary style piece of media center furniture that is constructed using a modular concept for the base units but having a continuous top. This top shall be fabricated in as large of sections as practicable.
3. **The front of Circulation Desk base** shall be closed and flush, with recesses or reveals, which may be accented by dark finish or slight protrusions of end panels to accent case divisions, or may include slight protrusions to give a framed effect.
4. **The front of Circulation Desk** base shall have a recessed toe space
5. **The modular design** shall allow custom arrangement of the base units depending on the space available.
6. **The height of the desk** shall be 29 - 32 inches for Elementary schools, 33 - 37 inches for intermediate schools, and 38 - 40 inches for High schools, Colleges, and Universities.
7. **Panels for cabinet units** shall be at least 3/4" thick and either 5-ply lumber core, 3-ply smooth surface particleboard core, multiple ply veneer core, or medium density fiberboard core. Solid wood edge banding shall be used on exposed edges. Other edges may be high-pressure plastic laminate. All edges must be matched with the face veneer for color and grain uniformity.
8. **Front and end panels** (where exposed) shall have wood face veneers. Exposed interiors shall have wood face veneer surfaces.
9. **The desktop** shall be of a continuous design with a minimum number of sections joined by a positive mechanical fastener. The top core shall be a minimum of 1 1/4-inch-thick medium density particleboard or fiberboard. It shall be top laminated with 0.050” thick, minimum, high-pressure laminate plastic. It shall have a 0.020” thick, minimum, balance sheet on the underside. The top shall be edge banded with 0.25” thick minimum solid hardwood oak or maple.
10. **Drawers** - Drawer fronts shall be 5-ply laminated construction, or minimum 3-ply balanced laminated construction or 45 lb. High-density fiberboard with veneer on both sides. (For the purposes of this specification, “high density fiberboard” is defined as finely ground wood chips, pressed and glued together Drawer sides and backs shall be of solid oak or other furniture grade hardwoods, or hardwood plywood, in accordance with best industry practice and finished minimum 7/16" thick. Detachable drawer fronts are acceptable. Vinyl-wrapped drawer sides or sides fabricated from particleboard, flake board, or a related material are NOT acceptable.

For inset drawers, the difference in the size of the drawer opening and the drawer front shall be no greater than ¼” (total) in height, and ¼” (total) in width. Drawers shall be installed so that the drawer is centered in the drawer opening.

Drawer bottoms shall be minimum 1/8" thick 3-ply with oak face, or 1/8" fiberboard with printed face compatible with the finish of the drawer. Bottoms shall be fitted into grooves on all four sides and stabilized with glue blocks, hot melt adhesive or coated staples.

Drawers shall have preferred dovetail (both English and French types are acceptable) construction at all four corners. Chuck-and-bore construction, bored-and-doweled construction, and box joint construction are also acceptable. All drawer corner joints shall be tight, free from cracks or missing wood, and properly and fully glued. Use of staples on corner joints is not acceptable. However, it is acceptable to use pins in addition to the above joining methods for additional joint reinforcement. Rabbetted or rabbetted-and-pinned construction is not allowed.

In assembled desks, file drawers shall operate on full extension, roller bearing, or ball bearing suspensions (Ex: “Accuride”-type”) and shall be rated to hold a minimum of 50 lbs. per drawer. Box and pencil drawers shall operate on a roller bearing or ball bearing suspension (Ex: “Accuride”-type”). All ball bearings to be metal. Drawers determined by the State to be significantly shorter than the industry norm for the given desk size are not acceptable. Drawer length (inside dimension) shall be a minimum of 80% of the depth (inside dimension) of the pedestal. Drawers (except file drawers as specified above) shall, when fully opened, expose a minimum of 75% of the drawer depth (inside dimension). The length of the drawer suspensions shall be within approximately 3” of the inside depth of the pedestal.

All file drawers shall be such that as furnished they will accommodate both letter and legal-size folders, whichever size is selected by the end Entity. A complete set of supports for both letter and legal-size hanging type folders is to be included. Folder hanger hardware is to be set up at delivery for letter size folders. Any holes required to locate hardware to hang legal size folders are to be drilled by Vendor. Relative arrangement of file drawer, suspension, case, and hanger hardware is to be such that a standard Pendaflex hanging folder equipped with plastic tab on top edge and properly suspended from the file hanger rails clears the parting rail or drawer front above it during drawer operation and does not drag the drawer bottom.

All drawers (file, box, and center) are to be removable from the case by the Entity. Release mechanisms (to allow such removal of the drawers from the case) are to be easily accessible by Entity without tools. Otherwise, the casegood is to be provided with an appropriate tool to enable the Entity to actuate the release mechanism. In addition, if shipping screws to retain the file drawer during transit are provided, these must be clearly labeled as such, or else written instructions are to be provided in the drawer advising the Entity as to the location of these screws and that they need to be removed in order to remove the drawer.

If center drawers are not full extension and the back of the drawer is not easily accessible, vendor is to install an appropriate barrier across the inside rear part of the drawer to prevent items from moving into the inaccessible rear portion thereof.

All drawer margins shall be even, without any evidence of misalignment of the drawer in closed position. On each drawer, the suspension shall be adjusted so that the drawer hits both stops simultaneously at drawer’s limit of withdrawal.

1. The following is the load rating for the various drawers.
2. Pencil drawers, small card drawers. 45 LB. Light Duty
3. Box drawers 75 LB. Medium Duty
4. File drawers 100 -150 LB. Heavy Duty
5. **Doors** - All doors shall be a minimum of 11/16 inch thick of 5 ply (minimum) lumber core or 3 ply particleboard

Doors to have wood face veneers. The door edges shall have matching veneer banding or as an alternative oak or maple solid wood edge banding 1/4 inch thick (minimum). The veneers and edge banding must be matched for color and grain uniformity.

All doors to be hung with commercial grade concealed hinges and must open a full 180 degrees.

Sliding doors shall be constructed to operate in track guides on rollers. Wood on wood contact in guides is not permitted.

1. **Framing material** shall be kiln-dried hardwood selected for structural soundness and shall be 3/4 inch thick (minimum).
2. **Joints** **shall** be those used in standard woodworking practice including dovetail, spline, rabbit, mortise and tenon, double dowels
3. **Shelves** - **shall** be 3/4 inch thick (minimum) either, solid wood, 5 ply lumber core. Shelves under 30 inches wide may be 3-ply particleboard. Shelf support shall be, with pinholes drilled in solid wood or plywood panels, or with metal shelf standards mechanically attached to particleboard vertical panels.
4. **Modules** - The following modules are typical of the units that may be required for an installation. The actual modules shall be furnished (Ordering Detail).
5. Desk Unit. (36 inches or 42 inches wide). The unit shall contain a 3-box draw pedestal with a knee space width of 23 - 27 inches.
6. Open Shelf Unit. The open unit shall contain two adjustable shelves and one fixed bottom shelf. The shelf adjustments shall be in increments of 1" (maximum).
7. Knee Space Unit. The knee space unit shall contain two adjacent drawers, with a coin tray and lock in one of the drawers. A 3" (minimum) wide footrest of solid hardwood with a durable cover shall be provided approximately 4" above the floor.
8. Card File Unit. The card file unit shall contain the number of card trays as specified in the Invitation for Bids (Ordering Detail). All units shall have one fixed bottom shelf and one adjustable shelf.
9. Charging Unit. The charging unit shall contain two adjacent drawers, one adjustable shelf, and one fixed bottom shelf. One drawer shall contain trays for charge cards (manufacturer's standard or ***as specified in the Invitation for Bids)***, and the other drawer shall include a coin tray and lock.
10. Charging Machine Unit. This unit shall have a well to accommodate a charging machine, a drawer that contains removable trays for 5" Height x 3" wide or 3" Height x 5" wide cards next to the well, and a 110 volt duplex outlet. When specified in the IFB an optional power outlet shall be provided. It shall consist of a four-outlet power strip with switch and circuit breaker, a power cord, and a grommet or slot furnished in the work surface for passage of equipment power cords.
11. Station Charging Unit. This unit shall contain a discharging unit and a card sorting unit. There shall be a well area containing trays for cards. The top of the well area shall be removable and store in slides underneath. There shall be a card return section with four slots in the top to receive cards, and a drawer underneath with compartments to hold the cards.
12. Discharge Unit. The discharge unit shall contain removable plastic or wood trays for cards. There shall be a cover over the well area that is removable and stores in slides underneath. This unit shall contain one adjustable shelf.
13. Book Return Unit. The book return unit shall serve as housing for a descending platform book truck. The front shall have an appropriate size opening with a suitable slide that directs the returned books onto the book truck.
14. The cupboard unit shall have two adjustable shelves, one fixed bottom shelf and either sliding or hinged doors.
15. Corner Filler Unit. The corner filler units shall be supplied as required in 15, 30, 45, 60, 75, and 90 degrees units. The 90° units may be square or angular design.
16. **SHELVING REQUIREMENTS**

**Diagram, engineering drawing

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1. **Modular Book Shelving**
2. Modular book shelving, typically of wood construction, consists of two finished end panels, intermediate upright(s), base unit with fixed shelf, adjustable shelves, and a top unit. When shelf standards are installed in the end panels and intermediate uprights, they shall be recessed and flush with the surface. Shelf support shall be, with pinholes or metal shelf standards with solid wood or plywood panels, or with metal shelf standards mechanically fastened when attached to particleboard (intermediate) panels. Pinhole support in particleboard is not permitted.
3. **End Panels** shall be 1" (minimum) thick, either solid lumber, multiple ply plywood (veneer core) or 5-ply lumber core plywood, with all exposed vertical edges banded with 1/4" inch (minimum) hardwood. Top edges of 42" and 60" high-end panels to have 1/4" inch (minimum) hardwood edge banding except when covered by continuous tops. The end panels shall incorporate a system of 1 1/4" [32mm] (or less) shelf adjustment increments on the inside face.
4. **Intermediate uprights** shall be 3/4" (minimum) thick and constructed the same as for end panels or with 3-ply, 1" (minimum) particleboard core. The shelf adjustment system shall be on both faces.
5. **Adjustable wood book shelves** shall be 3/4" (minimum) thick solid glued-up hardwood matched for color and grain with end panels, 5-ply (minimum) lumber core with finish surface veneer matched for color and grain with end panels with 1/4" (minimum) front hardwood edge banding. Multiple specie woods bonded on a shelf is permitted provided front (2" inches minimum)) piece(s) match(es) the exterior veneer in color and grain, and the remaining bonded strips do not deviate, in color and grain, dramatically. For example; dark and light hardwood strips are not acceptable. The underside of each end of the shelf to be grooved to sit firmly over the shelf supports. **Particleboard or Fiberboard shelves are not permitted**. The number of adjustable shelves shall be:

|  |  |
| --- | --- |
| **Unit Height** | **No. of Adjustable Shelves** |
| 42" | 2 |
| 60 1/2" | 4 |
| 82" | 6 |

1. **Adjustable metal book shelves**, **as** an orderable option, must carry the same load as wood shelves and be finished in a rub resistant baked paint, formed from Cold Rolled sheet Steel, and be available in various common colored finish options. See **XIV.,** Ordering Data, item 15.
2. **Base unit** consists of a plywood or solid wood (2 1/2" high minimum), boxed structure constructed with two full length linear rails, and solid full width hardwood end bolting blocks. Single face units (if not supplied with solid wood) shall be veneered to match the color and grain on the front rail. Double-faced units (if not supplied with solid wood) shall be veneered to match the color and grain on both rails. The non-adjustable 3/4" (min.) base shelf, shall be of the same material and construction as the adjustable shelves, or constructed from 3/4" (minimum) 3-ply particleboard with matching face veneers and a minimum 1/4"inch solid wood edge band. A particleboard base shelf is acceptable provided it is fully supported on all four sides of the boxed structure. The intent of supporting the shelf in this manner is to prevent any aged accumulative sagging of the particleboard due to the weight of stored books. The base shelf shall be installed in a manner to prevent any lateral movement of the shelf.
3. **Top unit** shall consist of a plywood top of 5-ply (minimum) lumber core or 3-ply particleboard core construction. If specified in the Invitation for **Bids**, the tops on 42" and 60 1/2" high units shall be surfaced with high-pressure plastic laminate which is matched for color and grain. The high-pressure plastic laminate shall meet N.E.M.A. - LD3 -1985 specifications, 0.050 inch thickness with a 0.020 inch thick (minimum) phenolic backing sheet. The top of the shelving can extend over a single module or can span multiple modules as specified in the Invitation for Bid. The canopy cornice consists of a plywood or solid wood (2 1/2" high minimum), boxed structure constructed with two full length linear rails, and solid full width hardwood end bolting blocks. Single face units (if not supplied with solid wood) shall be veneered to match the color and grain on the front rail. Double-faced units (if not supplied with solid wood) shall be veneered to match the color and grain on both rails.
4. **Back panel** 1/4" (minimum) 3-ply plywood or 5-ply plywood with select face veneer shall be furnished when specified in the Invitation **for** Bid. The face veneer shall be on one side for wall shelving, or both sides for double-faced freestanding shelving, unless ***specified otherwise in the Invitation for Bid***.
5. **Sway braces** shall be supplied for shelving without back panels when specified. The braces shall be 1/4" (minimum) diameter cold rolled steel rod. When assembled they must provide adequate stability resulting in a non-racking unit. Sway **braces** should be provided in two out of every five sections in a connected group. The braces shall be attached in a positive solid manner to prevent "pull out" from the end panels.
6. **Standard shelving units** shall be nominal 36" wide, and either 42", 60 1/2", or 82" high. Nominal depth of shelving units to be either 8", 10" or **12**". Double faced units to be nominal 16", 20" or 24" deep. The heights, depths and whether single or double face shall be as specified in the invitation for bid.
7. **Picture book shelving** shall meet all the applicable requirements as for standard shelving and furnished in either 42" or 60 1/2" heights as **specified**. This type of shelving shall have a minimum of five dividers at 10 equal intervals (minimum) along the shelf. The dividers shall be of 1/4"inch tempered hardboard with smooth rounded edges and corners. These dividers shall be supported vertically to prevent collapse when book loaded from one side.
8. **Shelving units** shall be assembled and properly aligned at the installation site. The method used to connect the end panel to the base and top units shall result in a secure non-racking assembly. Intermediate uprights shall be aligned and leveled when connected to the base and top units. Wood shelving modules 42" and 60 1/2" high shall have the finished top surface installed face up, and 82" high shelving shall have the finished face down. When continuous tops are specified, they shall have a minimum of 1 3/4"inch top frame consisting of a front and back rail, two end bolting cleats, and a provision for attaching the top. All field joints in continuous tops shall be splined and bolted.
9. **Filler Sections**, when specified in the Invitation for bids for wood shelving shall be provided closing all voids that occur in the coordination of **the** shelving layout and job site dimensions and conditions. [Information for Entity: These voids primarily occur when the top extends only over a single module. When a continuous top is used these voids are filled by the custom configuration of the top.] Fillers shall be of 3/4"inch (minimum) plywood with grain and finish matching the shelving. Horizontal (top) surfaces over vertical fillers in 42" inch and 60" inch high shelving shall be closed with the same material as supplied for the shelving tops. (either solid wood, veneered plywood, or high-pressure plastic laminate).
10. **TABLES AND CARRELS**

* **Tables and Carrels** covered in this specification are either leg base or panel end types. This paragraph defines the requirements as it applies to each item.

1. Leg base items shall have a leg attachment system that results in a secure non-racking unit. The method of attachment to the tabletop shall be either with machine bolts screwed into metal inserts or fastened with special screws designed for use with particleboard.
2. Panel end items shall have a panel attachment system that results in a secure non-racking unit. The end panels ("legs") shall be 1" inch (minimum) thickness and vertically stabilized by supporting them with a rail, or a suitable support panel. The method of attachment to the top shall be either with machine bolts screwed into metal inserts or fastened with special screws designed for use with particleboard. Panel end assemblies to have select veneer both faces.
3. Adjustable leveling glides are to be furnished on legs and end panel designs.

* **Tables**

**Diagram, engineering drawing

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**(Sketch shows leg base type. Visual reference only)**

* This covers the requirements for study, reference and index tables.
* All tops shall be surfaced with high-pressure plastic laminate top surface and a plastic balancing sheet on the underside.
* Tops shall have a finished thickness of 1 1/4" (minimum.), manufactured from either 5-ply lumber or particleboard, and edge banded with 1/4" (min.) thick solid wood. The edge banding shall match the exposed wood on the tables.
* Leg base tables shall have a leg attachment system that results in a secure non-racking unit. The attachment system shall be either, as described below, or a similar design that provides a very solid structurally sound joint. This attachment system shall incorporate a metal plate attached to the leg base by bolting it into a barrel nut inserted into each leg. The plate is then attached to the underside of the tabletop. The method of attachment to the tabletop shall be either with machine bolts screwed into metal inserts or fastened with special screws designed for use with particleboard.

Tables may have narrow aprons or rails on two or four sides. If included in the design of the table, the apron / rail must not extend more than 2 1/2" (inches) below the underside of the tabletop. Tables designed for stand-up use may have a structural apron 4.5" maximum that extends below the underside of the tabletop.

* Panel end Tables shall have a panel attachment system that results in a secure non-racking unit. The end panels ("legs") shall be vertically stabilized by supporting them with a keel, or rail, or a suitable support panel. The method of attachment to the tabletop shall be either with machine bolts screwed into metal inserts or fastened with special screws designed for use with particleboard.
* Tabletops with an unsupported length of 60" or more shall have at least one longitudinal stabilizer (keel), and tops with an unsupported width of 42" or more shall have at least one cross stabilizer. Headers and aprons, if securely fastened to the top, may function as stabilizers to satisfy these requirements.
* Adjustable glides shall be installed on legs and panels.
* **Carrel Tables**

**Diagram

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**(Sketch shows leg base type. Visual reference only)**

1. The sizes and configuration of the **carrel tables** shall be as specified in the Invitation for Bids.
2. Work Tops shall have a finished thickness of 1 1/4" (minimum.), manufactured from either 5-ply lumber or particleboard, and edge banded with 1/4" (min.) thick solid wood. The edge banding shall match the exposed wood on the tables.
3. Work Tops may be either veneered or surfaced with high-pressure plastic laminate with plastic balancing sheet on the underside. The working height is to be ***as specified in the Invitation for Bids.***
4. The carrel shall have a panel enclosure extending around the ends and back of the work top, constructed of 3/4" (min.) particleboard or 5-ply lumber core. All exposed edges shall have 1/4" (minimum) solid wood edge banding. Panels shall have select veneer surfaces on both faces.
5. Work top panel enclosure heights to be ***as specified in the Invitation for Bids.***
6. A storage shelf shall be included. It shall be constructed of 3/4" (min.) thick, 3-ply smooth surface particleboard or plywood with either face veneer or high-pressure plastic laminate on top surface. Shelves over 36" long shall be either 5-ply lumber core or solid lumber. The front edge shall be solid wood.

* **Study Carrels, Modular**

**A picture containing engineering drawing

Description automatically generated A picture containing table, handcart

Description automatically generated**

**Single Face Adder**

**A picture containing gymnastics, handcart

Description automatically generated A picture containing table, furniture, bed, worktable

Description automatically generated**

**Double face Adder**

**A picture containing gymnastics, handcart, table, worktable

Description automatically generated**

**Modular grouping**

**(Sketch shows leg base/post and panel type modular units. Visual reference only)**

1. Modular study carrels shall be provided in both single and double-faced design with initial, additional and add on units.
2. Type 1 is as previously defined a panel end type. Type 2 previously defined as leg base type is also known as a post and panel type. For this item the post and panel type is categorized as a type 2.
3. The sizes and configuration of the study **carrels** shall be as specified in the Invitation for Bids.
4. Work Tops shall have a finished thickness of 1 3/16" (minimum.), manufactured from either 5-ply lumber or particleboard, and edge banded on the front edge with 1/4" (min.) thick solid wood. The edge banding shall match the exposed wood on the end panels.
5. **Work Tops** shall be surfaced with high-pressure plastic laminate with plastic balancing sheet on the underside. The working height to be ***as specified in the Invitation for Bids***.
6. **Type 1 End Panels** shall be 3/4" (minimum) thick, solid lumber, multiple ply plywood (veneer core), particleboard, or 5-ply lumber core plywood, with all exposed edges banded with hardwood. Inside and outside surfaces shall be finished with wood veneer.
7. Both intermediate and back panels shall be same construction and material thickness as the end panels
8. **Type 2 End Panels** shall be 3/4" (minimum) thick, either solid lumber, multiple ply plywood (veneer core) or 5-ply lumber core plywood, with all exposed edges banded with hardwood. Inside and outside surfaces shall be finished with wood veneer.
9. Both intermediate and back panels shall be same construction and material thickness as the end panels
10. A storage shelf shall be included. It shall be constructed of 3/4" (min.) thick, 3-ply smooth surface particleboard core plywood with either face veneer or high-pressure plastic laminate on top surface. Shelves over 36" long shall be either 5-ply lumber core or solid lumber. The front edge shall be solid wood.
11. The modular attachment system shall provide suitable support for the individual pieces and result in a secure non-racking multiple unit assembly.
12. **Furniture for the Computer**
13. **Computer Tables /Carrels**

The basic table/carrel shall meet all the requirements detailed in paragraph VII. The configuration, size and wire management accessories ***shall be defined in the IFB. It is understood that the basic table/carrel (if applicable) will need to be modified to provide a solution for a particular computer support need. (For example; drill holes for grommets and paper slots, attach cable trays and power supply items.)***

1. **Companion Pieces and other items**
2. **The companion pieces and other items shall meet the general requirements of this specification, and shall be matching and companion items to the series offered by the manufacturer. Items** covered in this specification are either leg base or panel end types. This paragraph defines the requirements of each design as it applies to each item.
3. Leg base items shall have a leg attachment system that results in a secure non-racking unit. The method of attachment to the tabletop shall be either with machine bolts screwed into metal inserts or fastened with special screws designed for use with particleboard.
4. Panel end items shall have a panel attachment system that results in a secure non-racking unit. The end panels ("legs") shall be 1 " inch thickness (minimum) vertically stabilized by supporting them with a rail, or a suitable support panel. The method of attachment to the top shall be either with machine bolts screwed into metal inserts or fastened with special screws designed for use with particleboard. Panel end assemblies to have select veneer both faces.
5. All tops shall be surfaced with high-pressure plastic laminate top surface and a plastic balancing sheet on the underside.
6. Tops shall have a finished thickness of 1 1/8 " (minimum.), manufactured from either 5-ply lumber or particleboard, and edge banded with 1/4" (min.) thick solid wood. The edge banding shall match the exposed wood on the tables.
7. All floor standing items shall be equipped with adjustable leveling glides on legs and end panel designs.
8. The items described below, together with other additional technical furniture items, shall be furnished ***as specified in the Invitation for Bids.***
9. **Dictionary Stand**

This unit shall be 43 - 45" high at the rear. It shall be 24 -25" wide. The top shall be sloped to provide easy visibility. The sloping top shall have a retainer strip to prevent books from sliding off, and the main enclosure / case shall contain one adjustable or pullout shelf and a fixed bottom shelf positioned approximately 16 inches from the floor.

**A picture containing diagram

Description automatically generated**

**(Sketch shows leg base type. Visual reference only)**

1. **Revolving Dictionary Stand**

This unit shall be approximately 21"x15"x6" high. The sloping top shall have a retainer to prevent paper material from sliding off, and the base shall be approximately 12" in diameter. The underside of the base shall be felt covered, or provided with non-slip protective footpads. A swivel mechanism between the top and base sections shall be provided to enable free-action rotation.

1. **Atlas Stand**

The atlas stand shall be approximately 28" - 33" wide x 21" - 26" deep x 43 - 45" high. The top surface shall slope at approximately 10 degrees and have a front retainer strip to prevent books from sliding off. There shall be at least five pullout shelves that operate smoothly and adequately support the weight of the atlas volumes. They shall operate without interfering with, or damaging the reference materials placed on the shelves. Stops shall be provided to prevent shelf from pulling out of case. The bottom shelf shall be positioned approximately 16 inches from the floor.

**Diagram

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**(Sketch shows leg base type. Visual reference only)**

1. **Book Trucks**

Sizes and styles of book trucks shall be furnished as ***specified in the Invitation for Bids***. All book trucks shall be equipped with four noiseless, ball bearing casters. Two casters shall be of the swivel type. Locking type casters or fixed casters shall be furnished only when ***specified in the Invitation for Bids.***

Regular book trucks shall have 5" diameter (min.) x 1" (min.) tread casters. Special book trucks, such as descending platform and slipping book trucks shall have 3" diameter (min.) casters. All casters shall be fastened to the underside of the book truck with through-bolts.

**5.5.9 Bookcase, Wood, Office**

This specification covers wood office bookcases. It is not intended to cover all types of bookcases, but only the styles and designs most frequently purchased for state agencies, institutions, and the public schools.

These bookcases are not intended to be used as library shelving units as they are not equipped to withstand the "book weight" or are designed to be "ganged" together. These bookcases do not have the solid block box design at either the top or bottom that is typically used to bolt the library-shelving units together.

Many types of bookcase have been covered by this specification to provide a choice of grades.

The highest grade is Type I, Class 1, which is mostly constructed from solid wood, to the lowest grade Type II, Class 3 that is constructed from particleboard finished with low-pressure laminate. In addition, two styles, traditional and recessed are included.

Type II, Style A, Class 2 covers both regular and heavy-duty bookcases. The regular has 7/8" (maximum) panel end thickness and the heavy duty (Class 2H) has 1" (minimum) end panel thickness.

Note: Bookcases with shelves constructed from fiberboard or particleboard may incur a small permanent sag over a period of time depending on the "book load" applied.

1. **CLASSIFICATION**

* **Definitions of Classification**

1. The bookcases covered by this specification are defined by the 'Type' of design, Style of the base and top, and Class of the materials used in the manufacture.
2. Type defines the construction / design of the unit. There are two types, I & II
3. Type I is the typical case design with the sides, top, bottom and back panel attached to each other as a single unit. A separate base and top boxed structure is then attached to the case. This is shown in fig 1.

**Shape

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**Fig 1.**

1. Type II is the design with the end panels extending to the floor with rails attached to them front and back. The rails also provide support for the bottom shelf. See Fig 2

**Diagram

Description automatically generated**

**Fig 2.**

1. Style defines the configuration of the base. There are two styles, A & B.
2. Style A is a recessed base having a base structure that is recessed approximately 3/4" inch behind the front face of the shelving. See Fig 3.
3. Style B is a Traditional base having a base structure that is flush or extends approximately 3/4" inch beyond the front face of the shelving. Trim beading may be used to "soften" the interface between the case and the front top of the base. See Fig 4.

**Shape

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**Fig 3. Recessed Fig 4. Traditional**

1. Class defines the materials of construction. There are four classes, 1, 2, 3
2. Type I, Class 1 shall have the case manufactured from either solid wood, multiple ply plywood (veneer core), or 3-ply lumber core plywood. The base structure must be manufactured from the same materials as the case, or from particleboard or from fiberboard, surface finished with matching wood veneer. Shelves shall be manufactured from solid wood, multiple ply plywood (veneer core), or 3-ply lumber core plywood or from fiberboard (See paragraph defining shelf construction materials). They shall be surface finished with matching wood veneer.
3. Type II, Class 1 shall have the end panels manufactured from either solid wood, multiple ply plywood (veneer core), or 3-ply lumber core plywood. The base structure must be manufactured from the same materials as the end panels, or from particleboard or from fiberboard, surface finished with matching wood veneer. Shelves shall be manufactured from solid wood, multiple ply plywood (veneer core), or 3-ply lumber core plywood, particleboard or from fiberboard (See paragraph defining shelf construction materials). They shall be surface finished with matching wood veneer.
4. Type I & II, Class 2 shall be manufactured from either particleboard or fiberboard surface finished with matched wood veneer. Shelves shall be manufactured from solid wood, multiple ply plywood (veneer core), or 3-ply lumber core plywood, particleboard, or from fiberboard (See paragraph defining shelf construction materials). They shall be surface finished with matching wood veneer. The construction may include standard wood joints, cleats, mechanical locks, or metal plates / brackets.
5. Type I & II, Class 3 shall be manufactured from either particleboard or fiberboard surface finished with 0.028 inch thick (minimum) high-pressure laminate or Low pressure laminate. Shelves shall be manufactured from solid wood, multiple ply plywood (veneer core), or 3- ply lumber core plywood, particleboard or from fiberboard (See paragraph defining shelf construction materials). They shall be surface finished (top & bottom) with matching 0.028- inch thick (minimum) high-pressure laminate or Low-pressure laminate.
6. All external edges shall be finished with the same laminate that is used for end panels and shelves. Edges and corner interfaces shall be rounded and smooth to prevent snagging of clothing etc.
7. All parts finished with laminate must have a balancing sheet on the opposite side. This sheet shall be another laminate or a 0.020" minimum backer sheet.
8. The construction may include standard wood joints, cleats, mechanical locks, or metal plates / brackets.

* **Classification**

1. Types
2. Type I Case design
3. Type II End panel design
4. Styles
5. Style A Recessed base.
6. Style B Traditional base.
7. Classes
8. Class 1 Solid Wood
9. Class 2 Particleboard with wood surface veneer. End panels 7/8" (max) thick
10. Class 2H Particleboard with wood surface veneer. End panels 1" (min) thick
11. Class 3 Particleboard with High or Low-pressure laminate.

* **Identification**

The bookcases defined above shall be identified by Type, Style and Class. For example: Type I, Style B, Class1 represents a solid wood case design with a traditional base.

1. **APPLICABLE STANDARDS**

The following documents of issue in effect on the date of the Invitation for Bids shall form a part of this specification to the extent specified:

NEMA (NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION)

1. NEMA LD-3 High-pressure Decorative Laminates
2. **REQUIREMENTS**

* **General**

1. **IMPORTANT:** All bookcases shall be the manufacturer’s current standard production model and shall be represented as such in the manufacturer’s current published literature and current price book. The State at its sole discretion may accept or reject products that are priced in a published document other than the manufacturer’s current price book (e.g. products which are listed in a published price book supplement rather than the current price book itself). In addition, each product offered on the bid must have been in production for one (1) full year before the deadline for submittals associated with this specification. The State, at its option, may require certified documentation from the manufacturer to verify the claimed length of production time. Any product, which does not comply with these requirements, shall not be acceptable. Consistent with the State’s intent to solicit product lines which provide Entities a maximum choice of styles, it is necessary that the manufacturer submit requested information for each of the classifications specified herein.
2. All material, construction and assembly of the bookcase described herein shall be of a quality generally associated with high level standards of the furniture industry.
3. The material, construction, assembly and finish of the product shall be in accordance with good commercial practices, and entirely suitable for the purpose intended. All exposed parts shall be free of machine marks and smoothly sanded in preparation for the finish. The finish product shall exhibit good workmanship throughout.
4. Joinings shall be well glued and/or assembled with mechanical fasteners where applicable.
5. Mechanical fasteners (eg; screws) that are threaded into particleboard shall be of the type specially designed for use with particleboard (wood screws are not permitted).
6. Mechanical fasteners shall not be the primary means of securing a solid joint when the material of threaded member of the joint is constructed from fiberboard. Fiberboard has a low fastening strength (screw holding capacity). Nailing or stapling of fiberboard is not permitted.
7. Knocked down cases shall be assembled with mechanical fasteners that are both durable and easy to assemble. Fasteners shall be securely attached to matching parts in such a way that the parts cannot be easily pulled or knocked apart.
8. The use of “buttons” to conceal screws or fasteners is not acceptable.

* **Construction Materials and Finishes**

1. Solid Woods
2. Solid wood parts shall be of selected oak, birch, or maple as specified in the Invitation for Bids.
3. All solid wood used in bookcase construction shall be selected from structurally sound stock, free from such defects as visible splits, knots, checks or decay. The wood shall be properly kiln dried and conditioned to a moisture content of 5% to 7%. Exposed solid wood shall be selected at the time of assembly for uniformity of grain and color
4. Unexposed solid wood parts may be of suitable hardwoods. Wood panels used for core stock shall be made up of random widths no less than 1" and not more than 4"
5. Wood Veneers
6. The wood veneer species shall be plain sliced, and either oak, walnut, birch or maple or as specified in the Invitation for Bids. They shall be carefully selected for uniformity of grain and color, and also selected to eliminate wild grain patterns and gross figures. There shall not be wide variations of patterns between companion parts. The finished appearance of all exposed veneer surfaces shall be free of any detectable telegraphing of substrate, sand through, or adhesive bleed through.
7. Unexposed wood veneers may be of any suitable species of hardwood.
8. Core Material
9. Cores may be of the following types, as specified herein for this application.
10. Lumber cores shall be of good grade hardwood core stock in random widths of 1" to 4", straight, flat and squared edged before gluing. Discoloration, sound knots, and all defects that are properly patched or filled are acceptable.
11. Particleboard cores shall be made of wood chips, bonded with a moisture-resistant adhesive, and with a minimum density of 45-lbs/cu. ft.
12. Fiberboard cores shall be made from pressed fibers of wood, and with a minimum density of 45-lbs/cu. ft.
13. Multiple veneer cores (plywood) shall be of balanced cross-banded construction, with hardwood veneer cores free of structural defects, and assembled with a moisture-resistant resin adhesive.
14. Shelving Core Material
15. Shelving core material shall be either solid wood, multiple ply plywood (veneer core), or 3- ply lumber core plywood, particleboard or from fiberboard.
16. Due to the potential problem of permanent deflection (sag) when the shelf is manufactured from either particleboard or fiberboard, the following minimum physical properties are required.
17. Density, 45 lbs./cu. ft. (Panel weight per cubic foot)
18. Internal Bond, 60 psi (Resistance to internal stress-fiber bond)
19. Modulus of Elasticity, 300,000 psi (Deflection resistance- stiffness)
20. The shelves shall be surface finished with matching wood veneer, high-pressure laminate or low pressure laminate depending upon the Class of bookcase specified in the Invitation for Bid.
21. Plastic Laminates
22. High-pressure plastic laminate shall comply with the requirements of NEMA LD-3, grade GP-28 (minimum). Balancing sheet (backers), where applicable shall be at least grade BK- 20.
23. Low pressure plastic laminate panels.
24. These panels are thermally fused panels flat pressed from a thermo set polyester or melamine resin-impregnated web, pressure bonded to a cellulose substrate such as particleboard or fiberboard. The decorative face shall be designed to perform to minimum criteria as set forth in the American Laminators Association Performance Standard for Thermoset Decorative Panels (ALA. 1985)
25. When both laminate and wood parts are used in the construction of a bookcase, the laminate and wood parts shall be matched for grain and color.
26. Finish
27. Solid wood or wood veneered parts.
28. All wood parts shall be properly sanded to a smooth finish, before assembly. After assembly and before finishing, all excess glue shall be removed and all rough spots, dents, and scratches, shall be removed by hand sanding with the proper grit size paper. The entire piece shall have a smooth and proper surface to receive the finish. The components of assembled items shall have a matching finish where exposed.
29. The finishing materials shall be of top quality, and they shall be obtained from a reputable supplier to the furniture industry. Non-catalyzed nitrocellulose lacquer is not acceptable. The topcoat shall be highly resistant to abrasion, scuffing, sunlight, boiling water, alcohol, nail polish remover, mustard, ketchup, tea, ink, soft drinks, and juices.
30. Unless specified otherwise, the finish colors shall be the manufacturer's standard colors.
31. The finish shall be composed of applications of compatible materials that are properly applied and processed to give a high quality furniture finish.
32. Hardware
33. Visible metal components shall be brass, stainless steel, chrome plated, or coated with epoxy or acrylic enamel.
34. Bookcases utilizing a mechanical locking device shall have a positive locking design that enables the adjacent components to be tightly butted together. It shall remain tight until lock is mechanically released. Figure 5 is intended to show a typical device for visual reference. It is not intended to represent any particular manufacturers product.
35. If the locking device is visible on one surface of a component, that surface shall be positioned to visually hide the device. On bookcases less than 72" high, the device shall be visible on the underside of the top. On bookcases 72" high or greater, the device shall be visible only on the top surface. The device shall be on the underside of the bottom shelf hidden by the base structure

**Shape

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**Fig 5 Locking Device**

1. Adhesives

All adhesives shall be of good commercial quality and suited to the application for which used as recommended by the manufacturer of the adhesive.

1. **Bookcase construction**
2. **Type I Bookcases**

* Type I, Bookcase consists of two finished side panels, base and top panels, with adjustable shelves on maximum 2-inch centers (See Fig 1.). Shelf support shall be, with pinholes or metal shelf standards. When shelf standards are installed in the end panels, they shall be recessed and approximately flush with the surface. The base and top are separate boxed structures that are mechanically fastened to the case.
* Panels shall be 3/4" (minimum) thick with all exposed vertical edges banded with hardwood, veneer, or plastic laminate consistent with the Class of the unit. On bookcases less than 61" high the top edge of the end panels shall have a hardwood edge band, veneer, or plastic laminate consistent with the Class of the unit. Sides shall be flush to enable placing bookcases side by side.
* All shelves shall be 3/4" (minimum) thick with the surface finish matched for color and grain with end panels. Shelf front edge shall have hardwood edge band, veneer, or plastic laminate consistent with the Class of the unit. Each bookcase over 60" high may have one fixed shelf approximately at the center of the bookcase.
* The base unit consists of a 3/4" (minimum) thick plywood, fiberboard, particleboard or solid wood (2 1/2" high minimum), boxed structure constructed with two full length (front and back) linear rails. On single face units (if not supplied with solid wood) the visible rail surfaces shall be finished to match the color and grain of the case. On double-faced units (if not supplied with solid wood) the visible rail surfaces shall be veneered to match the color and grain of the case.
* The top unit if specified in the Invitation for Bid shall be similar construction as the base.
* A back panel 3/16" (minimum) constructed from 3-ply plywood, hardboard, or masonite shall be furnished. Select face veneer shall be furnished when specified in the Invitation for Bid. This face veneer shall be on one side for single face bookcases, or both sides for double-faced freestanding bookcases, unless specified otherwise in the Invitation for Bid. On single face units the back of the case shall be recessed or grooved to fit the back panel. The back panel shall be fastened with metal fasteners around the periphery. The back panel shall not be visible when viewing the bookcase from either side.
* Bookcase units shall be assembled and properly aligned at the installation site (if supplied as a knockdown unit). The method used to assemble the entire unit shall result in a secure non- racking assembly.

1. **Type II Bookcases**

* Type II, Bookcase consists of two finished 3/4" (minimum) thick side panels extending to the floor with adjustable shelves on maximum 2-inch centers (See Fig 2.). These are connected at the base by 3/4" (minimum) thick rails front and back, and a non-movable bottom panel. The rails also provide support for the bottom shelf. The top is similarly connected with a non- movable top panel. In addition, this panel may have a vertical 'stiffener' rail attached to the front underside. Shelf support shall be, with pinholes or metal shelf standards. When shelf standards are installed in the end panels, they shall be recessed and approximately flush with the surface.
* Panels shall be 3/4" (minimum) thick with all exposed vertical edges banded with hardwood, veneer, or plastic laminate consistent with the Class of the unit. Class 2H bookcases shall have panels 1"inch minimum thick. On bookcases less than 61" high the top edge of the end panels shall have a hardwood edge band, veneer, or plastic laminate consistent with the Class of the unit. Sides shall be flush to enable placing bookcases side by side.
* All shelves shall be 3/4" (minimum) thick with the surface finish matched for color and grain with end panels. Shelf front edge shall have hardwood edge band, veneer, or plastic laminate consistent with the Class of the unit. Each bookcase over 60" high may have one fixed shelf approximately at the center of the bookcase.
* A back panel constructed from 3-ply plywood, hardboard, or Masonite shall be furnished.
* Select face veneer shall be furnished when specified in the Invitation for Bid. This face veneer shall be on one side for single face bookcases, or both sides for double-faced freestanding bookcases, unless specified otherwise in the Invitation for Bid. On single face units the back of the case shall be recessed or grooved to fit the back panel. The back panel shall be fastened with metal fasteners around the periphery. The back panel shall not be visible when viewing the bookcase from either side.
* Bookcase units shall be assembled and properly aligned at the installation site (if supplied as a knockdown unit). The method used to assemble the entire unit shall result in a secure non- racking assembly.

**5.5.10 Ergonomic Chairs**

|  |  |
| --- | --- |
| This specification covers ergonomic chairs for use by state agencies and institutions for a workforce that falls within the 20th to 80th percentile normal population distribution. Ergonomic chairs are characterized by the multiple comfort adjustments it provides. The adjustments serve to minimize the adverse effects on the body from sitting for long periods of time. | A blue office chair  Description automatically generated |
| For the variety of chairs listed below, Production Option means a supplier chooses which design type to manufacture. Class 2 is preferred but Class 1 is acceptable and you do not have to offer both designs. |
| It is the intent of this specification to procure only recognized quality, extended duty (up to 10 hours of seating a day, 260 days per year minimum), commercial grade chairs. Chairs, which in the sole judgement of the state are judged to be of poor design and manufacture are unacceptable and the state reserves the right to reject chairs on that basis. |

1. **CLASSIFICATION**

* **Category I - Regular Size (up to 300 lbs)**

1. **Type I** - Independently Adjustable Seat Pitch & Back Position
2. **Class 1** - Pneumatic Seat & Back Operation (Production Option)
3. Size 1 Task/Operator
4. Size 2 Supervisor/Manager
5. Size 3 Manager/Executive
6. **Class 2** - Spring/Tension Seat & Back Operation (Production Option)
7. Size 1 Task/Operator
8. Size 2 Supervisor/Manager
9. Size 3 Manager/Executive
10. **Type II** - Synchronized Seat & Back Movement
11. **Class 1** - Pneumatic Seat & Back Operation (Production Option)
12. Size 1 Task/Operator
13. Size 2 Supervisor/Manager
14. Size 3 Manager/Executive
15. **Class 2** - Spring/Tension Seat & Back Operation (Production Option)
16. Size 1 Task/Operator
17. Size 2 Supervisor/Manager
18. Size 3 Manager/Executive

* **Category II - Large Size, Extra Heavy Duty (up to 500 lbs)**

1. **Type I** - Independently Adjustable Seat Pitch & Back Position
2. **Class 1** - Pneumatic Seat And Back Operation (Production Option)
3. Size 2 Supervisor/Manager
4. Size 3 Manager/Executive
5. **Class 2** - Spring/Tension Seat & Back Operation (Production Option)
6. Size 2 Supervisor/Manager
7. Size 3 Manager/Executive
8. **Type II** - **Synchronized** Seat & Back Movement
9. **Class 1** - **Pneumatic** Seat & Back Operation (Production Option)
10. Size 2 Supervisor/Manager
11. Size 3 Manager/Executive
12. **Class 2** - Spring/Tension Seat & Back Operation (Production Option)
13. Size 2 Supervisor/Manager
14. Size 3 Manager/Executive

* **Category III - Regular Size**

Identical to Category I except has structural plastic base.

* **Category IV - Large Size, Extra Heavy Duty**

Identical to Category II except has structural plastic base.

1. **Applicable Standards**

Reference to specifications, standards, test methods and other documents shall be to the issues in effect on the date of the Invitation for Bids. Copies of the referenced documents may be obtained from the issuing organizations at the addresses shown. The following publications form a part of this specification to the extent specified herein:

specified herein:

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

* ANSI/BIFMA X 5.1(2002): Tests For General Purpose Office Chairs
* ANSI Z34.2, Self-Certification by Producer or Supplier
* ANSI/HFS 100-2002: American National Standard For Human Factors Engineering Of VDT Workstations

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

* ASTM D 3574: Method of Testing Flexible Cellular Materials: Slab, Bonded and Molded Urethane Foams.
* ASTM D 3770: Standard Specification for Flexible Cellular Materials: High-Resilience Polyurethane Foams.
* ASTM D 4157: Method of Abrasion Resistance of Textile Fabrics (Oscillatory Cylinder Method).

FEDERAL SPECIFICATIONS.

* TT-C-490: Cleaning Methods of Ferrous Surfaces and Pretreatments for Organic Coatings
* A-A-2235: Chairs, Rotary (Office, Ergonomic, Upholstered)

OTHER

* Upholstered Furniture Action Council
* UFAC Voluntary Action Program
* California Technical Bulletin No. 117
* New York Ports Authority Flammability Regulations
* Boston Fire Code

1. **Requirements**
2. **General**

It is the intent of this specification to offer the Buying Entity the broadest possible selection of chairs meeting the requirements of this specification. This division, at its sole discretion, may reject any line, or series, of chairs that it deems insufficient to meet this requirement. End Entity demand, sufficient competition, product value plus appropriate design and function also contribute to all final decisions. Novel and atypical designs must demonstrate production stability for consideration.

You are required to supply a minimum number of chair configurations. Failure to do so will prevent you from being added to the Qualified Product Listing even if your products meet the minimum qualifications. The State of North Carolina prefers that you be able to supply all four (4) categories however that is not mandatory. For each category you choose, you may elect to produce and supply either a Class 1 or Class 2 (preferred) control. However, you must be capable of supplying both Types and all Sizes within a given Category. All chair measurements must be made and advertised per the guidelines set by ANSI/HFS standards.

All dimensions listed are associated with large, sometimes cumulative, tolerances. This is especially true for dimensions that include soft and irregularly shaped surfaces. If you have a concern about your product not complying with the dimensions listed in this document, please contact our office for assistance. You will likely have to forward an engineering drawing with dimensions and associated production tolerances for approval consideration.

Common Ergonomic Chair Attributes: Fabric types and colors, seat style (width and depth) and contour, backrest width and height and contour, lumbar support, headrest, seat height adjustment range, seat slider, asynchronous seat /back tilt, 2:1 synchronous back/seat tilt, tilt lock, floating backrest with tension control, 360-degree seat swivel, adjustable height/width arms, various caster types, base diameter and material type. Other not so obvious attributes include seat and back pan materials, foam(s) under the fabric and weight limit of a particular chair. Not all chairs will have all of these attributes. Stools may be derived from ergonomic chairs by adding foot rings, changing height control cylinders and deleting arms and adding caster locks as required.

Chairs offered under this specification shall be of the manufacturer’s standard production and shall be offered to the general public. Any deviation from standard manufacture, specifically for the State of NC, is prohibited. Descriptive literature and a published suggested retail price list, coinciding with the series offered, must be available upon request. The published price list must show all models and associated options offered. No marked-up literature is allowed and all approved products must have been in production for at least one (1) year at the time of evaluation.

1. **Requirements**
2. Base – Chairs shall have a 360-degree swivel base with a 5-leg minimum “star” configuration. Base shall be free of sharp edges. The base shall be high strength, heavy duty, cast or die formed aluminum alloy as well as welded steel tube arms, with decorative cover (where specified or available), having a minimum of 16-gage material (5/8” minimum cross section). Alternately, the entire base may be of solid injection molded plastic, color impregnated, ABS (Acrylonitrile Butadiene Styrene) for 300 lb. chairs or injection molded, glass reinforced nylon (polyamide) thermoplastic, for 500 lb. chairs, with a minimum vertical static load capacity of 2,500 pounds and 3,000 pounds respectively. Metallic surfaces shall be scuff and oxidation resistant. An optional chrome or polished aluminum finish, when specified in the invitation for bids, shall be available as well as a powder coated paint finish. Polished chrome footplates shall be available when requested. Contrasting colors must exhibit good art. The diameter of the base shall be a minimum of 25” (radius measured centerline of cylinder to center line of caster shaft) for Category 1 and 3 chairs and a minimum of 27” for Category 2 and 4 chairs.
3. Adjustment Mechanisms - All adjustment controls shall be permanently identified with Icons or raised symbols and readily viewable and Entity accessible to the occupant and easily operated to execute the adjustment(s) while seated. A control that requires simultaneous adjustment of the seat pitch and back tilt angles of type I chairs is not acceptable. The seat tension adjustment device must be easy to turn and must be operated using a hard plastic or metal wheel with 4 or more grip knob projections of 1/8” minimum height and a minimum outside diameter of 2 ½ inches.
4. Seat Construction - The inner shell (pan) shall be constructed of preformed plywood or a composite material. The inner shell shall be covered with a good grade of contoured foam, a minimum of 2 1/2” thick that is comfortable to the occupant and will not deteriorate or lose its resiliency during the warranty period. The foam shall meet the requirements of California Technical Bulletin 117. The seat shall have a "waterfall" or "roll-off" front edge. The upholstery shall be wrinkle free. Seat pan covers are optional but wood pans must be covered with a decorative paper as a minimum.
5. Back Construction –

Classic: The inner shell (pan) shall be constructed of preformed wood, plastic or metal material. The inner shell shall be covered with a good grade of foam, a minimum of 2” thick, which is comfortable for the occupant and will not deteriorate or lose its resiliency during the warranty period. The foam shall meet the requirements of California Technical Bulletin 117. The upholstery shall be wrinkle free and there shall be no sharp edges on any moldings of the outer pan. The back shall be contoured to include a lumbar region for support of the occupant's lower back. The back may be finished with a plastic pan or fabric.

New Era: The back may be constructed with an open weave fabric absent of any foam or upholstery suspended by a smooth supporting frame. The open weave, often referred to as mesh, must provide comfort and durability equal to the offerings of a classic shell, foam and fabric design. The open area of a mesh material shall be no more than 50%, equally distributed over the entire area, and no less than 40%. Durability and flammability test reports, along with warranty information, must accompany any new model presented to the State of North Carolina for consideration.

Backs must exhibit some type of over-run safety device to prevent accidental disengagement of the back from the base. Additionally, with the seat in its lowest position and at maximum rear tilt, the back-adjustment bar must not hit or fall between the legs of the base to prevent the seat from rotating when in its lowest position.

1. Arms - Arms shall meet the prescribed tests for arms. They shall be designed to give comfortable support to occupant's arms and not interfere with proper placement of the chair in the workstation. Top of arm surface shall be made of resilient material and shall be durable and soft in the occupant's arm contact area. Adjustable height arms shall be adjustable in even increments for each arm. Arms are a standard offering.

All chairs must be available with adjustable height and width arms. All adjustment knobs, except for the tension adjustment knob, must be at least 2” diameter and easy to access and manipulate by smaller persons. Fixed arms, however, must be available when specified on an order. The use of screws substituted for adjustment knobs is not allowed.

1. Casters - All chairs shall be standard with dual-wheel casters capable of being replaced. Carpet, hard floor and ESD wheels shall be available with optional manual lock specified in bid. For BIFMA tests, the manufacturer’s standard caster shall be used. Poorly designed and manufactured casters that exhibit excessive clearances and wobble and or make annoying noise on hard surfaces during movement are not acceptable.
2. Pneumatic Cylinders - All pneumatic cylinders shall be of Suspa, Stabilus or equal in performance and durability and suitable for the category of chair intended. Any cylinder must have a 4” minimum extension range.
3. Workmanship - All chairs shall demonstrate the use of good materials and workmanship, upholstery materials shall be well tailored, and seams and welts shall be smooth and straight. All other construction shall demonstrate the use of good processes and practices of fabrication and assembly. There shall be no sharp corners or edges that could cause injury to persons or damage to clothing. Pull-string upholstery technique must be securely stapled around the pattern or nested in a dedicated recess. All fasteners must have lock washers. Assembly lubricants that can come in contact with clothing during normal chair use are not acceptable. Best engineering practices must be followed for both design and manufacturing of chairs.
4. All chairs must come with indelible instructions, permanently attached to the right arm of the chair and readable while sitting, on how to properly adjust the various controls to achieve maximum comfort and proper support for the end Entity. The same instructions should also include any cautions and/or warnings (including weight limits) about using the chair plus a toll free phone number for technical support. The State encourages the use of bar code labels for inventory tracking. Label to be on bottom of seat pan and on an easily accessible flat surface.
5. **Specific Type Requirements**
6. **Category I Chairs**
7. Type I & III, Independent Seat & Back Pitch Adjustment

The type I mechanism shall provide the following adjustments:

1. Seat height: Shall adjust and lock in an infinite number of positions through a minimum range of 4 inches (16" to 20.0” typical) when measured in accordance with ANSI/HFS 100-1988.
2. Seat Angle: Shall adjust and lock independently of back tilt and shall provide a negative (forward) seat pitch angle of 3 degrees nominal, and a backward tilt of 7 degrees nominal. The seat pan shall lock in place at any angle within the range that the seat will tilt.
3. Back Angle: Shall adjust independently of the seat pitch and tilt at least 10 degrees but no more than 20 degrees. The back shall lock in position at any angle throughout the range that it will move. The back must not tilt more than 30 degrees backwards when measured from the centerline of the height control cylinder.
4. Back Height: Shall adjust up and down to provide positive support for the lumbar region of the occupant's back. A ratchet type adjustment is preferred. Other types must not allow the back strap to become trapped between the base spokes when the chair and back are at their lowest positions and back is reclined.
5. Free Float: Allows the back of the chair to move freely and maintain contact with the occupant's back with the seat tilt angle lever locked in place. The back shall float through the entire range of positions that the back-tilt angle can be locked. An adjustable tension control device shall support the back.
6. Type II & IV, Synchronized Seat & Back Pitch Adjustment

The type II mechanism shall provide the following adjustments:

1. Seat Height: Shall adjust and lock in an infinite number of positions through a minimum range of 4 inches (16" - 20.0” typical) when measured in accordance with ANSI/HFS 100-1988.
2. Seat Pitch and Back Tilt Angle: Shall be synchronized to a ratio of approximately 2:1 and shall provide a rearward back tilt angle of 10 – 30 degrees when measured from the centerline of the height control cylinder.
3. With the seat pan tilted fully forward, the chair back shall not constrain the upper torso to a position forward of vertical.
4. Lock In Place: Adjustment shall be provided to lock the seat and back in place at any angle within the range that the seat will tilt.
5. Free Float: Allows the back and seat to move freely in synchronization throughout the entire range that the seat will tilt.
6. Class 1 - Pneumatic Seat and Back Operation

The back and seat tilt operations shall be accomplished by the use of pneumatic cylinders. The seat height adjustment shall be accomplished by the use of a pneumatic cylinder

1. Class 2 – Spring Tension Seat and Back Operation

The back and seat tilt operations may be accomplished by the use of a spring or other tension-type mechanism. The seat height adjustment shall be accomplished by the use of a pneumatic cylinder.

1. **Category II Chairs**
2. Type I, Independent Seat & Back Pitch Adjustment

The type I mechanism shall provide the following adjustments:

1. Seat Height: Shall adjust and lock in an infinite number of positions through a minimum range of 16" to 20.0" when measured in accordance with ANSI/HFS 100-1988.
2. Seat Angle: Shall adjust and lock independently of back tilt and shall provide a negative (forward) seat pitch angle of 3 degrees nominal, and a backward tilt of 7 degrees nominal. The seat pan shall lock in place at any angle within the range that the seat will tilt.
3. Back Angle: Shall adjust independently of the seat pitch and tilt at least 10 degrees but no more than 20 degrees. The back shall lock in position at any angle throughout the range that it will move. The back must not tilt more than 30 degrees backwards when measured from the centerline of the height control cylinder.
4. Back Height: Shall adjust up and down to provide positive support for the lumbar region of the occupant's back. A ratchet type adjustment is preferred. Other types must not allow the back strap to become trapped between the base spokes when the chair and back are at their lowest positions and back is reclined.
5. Free Float: Allows the back of the chair to move freely and maintain contact with the occupant's back with the seat tilt angle lever locked in place. The back shall float through the entire range of positions that the back tilt angle can be locked. An adjustable tension control device shall support the back.
6. Type II, Synchronized Seat & Back Pitch Adjustment

The Type II mechanism shall provide the following adjustments:

1. Seat Height: Shall adjust and lock in an infinite number of positions through a minimum range of 16" - 20.0" when measured in accordance with ANSI/HFS 100-1988.
2. Seat Pitch And Back Upright Tilt Angle: Shall be synchronized to a ratio of approximately 2:1 and shall provide a rearward back tilt angle of 10 – 30 degrees when measured from the centerline of the height control cylinder.
3. With the seat pan tilted fully forward, the chair back shall not constrain the upper torso to a position forward of vertical.
4. Lock In Place: Adjustment shall be provided to lock the seat and back in place.
5. Free Float: Allows the back and seat to move freely in synchronization throughout the entire range that the seat will tilt.
6. Class 1 - Pneumatic Seat and Back Operation

The back and seat tilt operations shall be accomplished by the use of pneumatic cylinders. The seat height adjustment shall be accomplished by the use of a pneumatic cylinder.

1. Class 2 - Spring/Tension Seat and Back Operation

The back and seat tilt operations may be accomplished by the use of a spring or other tension-type mechanism. The seat height adjustment shall be accomplished by the use of a pneumatic cylinder.

1. **Category III Chairs**

This category has the same requirements as **Category I** Chairs, but the base is a molded structural plastic component.

1. **Category IV Chairs**

This category has the same requirements as **Category II** Chairs, but the base is a HD molded structural plastic component.

1. **Dimensional Requirements**

**Category I and III Chairs - Regular Size**

Note: Dimensions shown are in inches and considered typical.

|  |  |  |  |
| --- | --- | --- | --- |
| Dimension | Size 1 | Size 2 | Size 3 |
| Seat Cushion Width | 18" | 19” | 20" |
| Seat Cushion Depth | 16" | 17" | 18" |
| Back Cushion Height | 13" | 16" | 19" |
| Back Cushion Width | 16" | 17" | 18" |
| Distance Between Arms | 18" | 19" | 20" |

**Category II and IV Chairs - Large Size, Extra Heavy Duty**

Note: Dimensions shown are in inches and considered typical.

|  |  |  |
| --- | --- | --- |
| Dimension | Size 2 | Size 3 |
| Seat Cushion Width | 21" | 23” and larger |
| Seat Cushion Depth | 17" | 20” and larger |
| Back Cushion Height | 20" | 23” and larger |
| Back Cushion Width | 20" | 21” and larger |
| Distance Between Arms | 21" | 23” and larger |

1. **Intended Use**
2. Type I, III Chairs

A chair intended for use by persons assigned to "heavy" VDT workloads (more than 4 hours per day) or "moderate" VDT workloads (2 to 4 hours per day). This style chair is also appropriate for most general desk type work whether or not the work involves the use of a VDT (video display terminal or computer).

1. Type II, IV Chair

A chair intended primarily for intensive use by law enforcement centers.

**5.5.11 Wood, Office Side Chairs**

This specification covers upholstered wood office side chairs and upholstered wood non-ergonomic swivel-tilt desk chairs as defined herein, of traditional, transitional, and contemporary design. Any manufacturer whose line of chairs, in the State's sole judgment, is predominately of a style not suited for the State's various types of offices may be rejected on that basis. Ergonomic chairs, and sofas, lounge chairs, love seats, multiple seating, dining room seating, and other types of seating are covered by separate specifications.

1. **CLASSIFICATION**

The classes of side chairs and desk chair below are defined by basic chair features which are verifiable from manufacturers' catalogs or other published literature in most cases. In general, for individuals of average size and build, the more comfortable chairs fall in classes with higher designations (e.g. Class 5 chair more comfortable than Class 1 chair). It is realized that such relationship may not occur in all cases with all models of chairs, but exceptions would not compromise the suitability of these classes for the bidding purposes intended here.

The classes below exclude the following types of chairs: armless, stackable and sled-based side chairs, and swivel-tilt desk chairs (Class 6) with only four prongs on the base. The chairs may be acceptable on the resulting contract if they meet all other specifications, and if the IFB does not otherwise restrict such models. Strict adherence to dimensional requirements is not required.

Class 1: Side chair, non-upholstered or upholstered arms, open back, upholstered seat and back, wood frame, seat suspension system as called for herein, minimum seat depth 17"

Class 2: Side chair, non-upholstered or upholstered arms, closed back, upholstered seat and back, wood frame, seat suspension system as called for herein, minimum seat depth 17"

Class 3: Side chair, fully upholstered arms, open back, upholstered seat and back, wood frame, seat suspension system as called for herein, minimum seat depth 18"

Class 4: Side chair, fully upholstered arms, closed back, upholstered seat and back, wood frame, seat suspension system as called for herein, minimum seat depth 18"

Class 5: Side chair, fully upholstered arms, closed back, upholstered seat and back, wood frame, seat suspension system as called for herein, minimum seat depth 18", minimum overall height 36"

Class 6: Desk chair, non-ergonomic, swivel-tilt type (seat tilts, back fixed with respect to seat; or seat has one or more discrete fixed positions, back tilts), arms (upholstered or not upholstered), closed back, upholstered seat and back, wood frame, seat suspension system as called for herein, pedestal type base with minimum five wood-capped metal prongs with caster on each prong, adjustable seat height, control for tilt tension, minimum seat depth 18". It is acceptable for optional bases to be offered if such are shown in the price book (e.g. a five-prong optional base in lieu of a four-prong standard base). The minimum seatback height dimension, measured with a straightedge positioned against front side of seatback and in its plane of symmetry, from the point the straightedge contacts seat cushion to the point where straightedge intersects a horizontal plane touching the highest point on the back, is 21". (Ergonomic chairs are covered by another specification and therefore are not included, nor acceptable, in this class.)

1. **APPLICABLE SPECIFICATIONS AND STANDARDS**

Referenced specifications and standards shall be the latest issue in effect of the date of the Invitation For Bids. Copies of referenced materials may be obtained from the issuing organizations at the addresses shown. The documents below form a part of this specification. All chairs shall comply with all applicable provisions of each such document, including but not limited to particular provisions therein which may be called out elsewhere in this specification.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

* ANSI/BIFMA X5.1-2002. American National Standard for Office Furnishings --- General-Purpose Office Chairs ---Tests

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

* ASTM D3574-91 Standard Test Methods for Flexible Cellular Materials--Slab, Bonded, and Molded Urethane Foams
* ASTM Z34.2-1987. American National Standard for Certification --- Self-Certification by Producer or Supplier.
* ASTM D 3597-89 Standard Specification for Woven Upholstery Fabrics --- Plain, Tufted, or Flocked
* ASTM D 4157-92 Standard Test Method for Abrasion Resistance of Textile Fabrics (Oscillatory Cylinder Method)

FEDERAL SPECIFICATIONS.

* Federal Test Method Standard No. 191A, Method 5903.1, Flame Resistance of Cloth; Vertical

OTHER

* Technical Bulletin 117. Requirements, Test Procedure and Apparatus for Testing the Flame Retardance of Resilient Filling Materials Used in Upholstered Furniture

1. **REQUIREMENTS**

**A. WOOD PARTS**

All woods used shall be kiln dried to commonly accepted tolerances before machining.

1. Exposed Wood Parts - All exposed wood parts shall be clear cutting and free of knots, splits, or checks. Unless otherwise called for in the Invitation for Bids, species shall be as specified on the purchase order, and will be selected from any species listed as available in the manufacturer's published literature for model offered.

2. Interior Wood Parts - Interior wood parts shall be of suitable hardwoods free of any defects that may affect the structural integrity of the chair.

3. Steam Bent Wood Parts - Steam bent wood parts shall be of a species suitable for bending and if exposed shall have grain and finishing characteristics similar to other exposed wood parts.

**B. CASTERS**

Class 6 chairs shall be equipped with the minimum number of casters specified elsewhere herein. Casters shall be black dual-wheel non-metallic, non-abrasive, non-marking type, minimum 2" diameter, unless otherwise specified on the purchase order. Manufacturer's standard casters may be used for BIFMA tests.

**C. GLIDES**

Unless otherwise specified on the purchase order, side chairs shall be equipped with nail type glides, minimum nominal 3/4" diameter, with caps of rust-proof material. Glides less than 11/16" in diameter at the largest cross-section are not acceptable. Nylon or other durable composition may be used in lieu of nickel or chrome plated steel.

**D. GLUE**

Glue shall be of good commercial quality, and gluing processes shall be according to best industry practice to assure joints of maximum strength.

**E. ROTARY MECHANISMS**

All Class 6 chairs shall have a suitable metal rotary mechanism having four attachment points to the underside frame of the seat, a spiral-spring-tension adjustment for tilt and a positive adjustment for height of seat of not less than 2" in range. The materials used shall be free from hazardous surfaces, rust, and other defects which affect the appearance or which might affect the safety of the Entity, or the durability or serviceability of the finished mechanisms. Tension adjustment for tilting shall be by means of a suitable hand-wheel conveniently located on the chair rotary mechanism. Adjustment for seat height shall be by means of a suitable hand wheel or gas cylinder located concentrically on the swivel axis of the chair and shall be self-locking and permit swiveling. Minimum actual height adjustment is 2 1/2". The mechanisms shall operate easily and rotate freely without causing the base to turn, and shall be free from excessive play and wobble. All moving parts shall be properly lubricated. Mechanisms shall be smoothly enameled in a color compatible with the finish of the chair.

**F. SCUFF PLATES**

All Class 6 chairs shall be furnished with scuff plates on the legs where such is standard for model offered. They shall be molded of phenolic resin compound or equivalent. Antiqued brass is also acceptable. The color of the scuff plates shall be compatible with the furniture finish.

**G. UPHOLSTERY**

All fabrics used in upholstering the chairs shall comply with all applicable requirements in ASTM D 3597-89. When tested by Method 5903.1, in Federal Test Method Standard No. 191A, fabric shall not exceed two seconds after-flame time nor exceed a char length of 3".

If a 100% nylon fabric is specified on the purchase order, then unless otherwise allowed or called for, such fabric is to be minimum 14 oz. per lin. yd. (54" width) and is to meet the surface abrasion requirement for heavy-duty fabric (i.e. 15,000 double-rub cycles) in ASTM D 3597-89 when tested in accordance with ASTM D 4157-92.

All upholstery tailoring shall be performed in accordance with accepted best industry practice. Appearance shall likewise be typical of results obtained by such tailoring techniques. Patterns, where used, should be in proper alignment between the various upholstered surfaces of the chair. Seams should not be placed on a heavy-wear location of the chair (such as on the centerline of the upper surface of the arm).

Upholstery on arms, where required, must cover at least the top face and one side face of the horizontal portion of each arm. (However, it is not required that the entire horizontal length of the arm be covered.)

**H. BUMPERS**

Bumpers are required on the backs of Class 6 chairs where they are standard on model offered.

**I. JOININGS**

All joints and joinery of chairs shall be done in a secure and rigid manner in accordance with best industry practice. Dry joints, poorly fitted joints, or joints where glue appears on a finished surface are not acceptable. All exposed screws and bolts that are not decorative shall be countersunk and plugged for finished appearance except where established as part of the design and shown acceptable by customer usage. Dowells, tenons, chucking and boring with adequate glue applied shall be used where applicable, with appropriate mechanical reinforcements used where necessary and practical. Reinforcing cleats and/or corner blocks shall be used where necessary for secure fastening.

**J. SEATS**

1. The following types of seat suspension systems are acceptable: drop-in prefab metal spring units, sinusoidal "No-Sag" type, conventional eight-way hand tied coil springs, "woven mesh" type web construction, and "permanent sheeting" type construction (where the suspension is cut as one continuous sheet rather than from wide strips which are then woven together as in the woven mesh construction). However, the suspension system provided must be the standard type for the model offered, unless specifically otherwise allowed in the Invitation for Bids or requested by the Entity. All springs shall be adequately tied and covered with padding of quality and composition acceptable in best industry practice. Padding shall be such that the seat maintains proper shape and comfort in continued daily use.

2. Polyurethane foam which may be contained in the chair seat must meet the following requirements:

The urethane foam shall be a flexible polyurethane material suitable for use as furniture cushioning. It shall be manufactured from pure polyether type polyurethane without the addition of fillers. Pigments may be used to designate grades etc. The foam shall be open cell structure, 100% new material, and shall be such that odors and absorbed materials from alcohol, body fluids, and other substances shall be readily removed by washing with soap and mild detergents without damage to the urethane foam.

Urethane shall be tested in accordance with ASTM-3574, and shall conform to the following minimum standards (Section numbers refer to the D3574-91 issue):

a) Density - The procedure as outlined in Sections 9-14 shall be followed to determine the density. The minimum density shall be 1.5 lbs/cu.ft. (24.0 kg/cu. m) for seats. The minimum density for backs and miscellaneous padding shall be 1.2 lbs/cu.ft. (19.2 kg/cu. m).

b) Compression Set - Constant Deflection-Sections 37-44 shall be used to determine the compression set. The maximum set shall be 10% of the original thickness of the specimen when compressed to 90%. Report this value as Ct.

c) Load Deflection - Indentation Force Deflection Test- Specified Deflection Test B1. Sections 16-21 shall be used to determine the Indentation Force Deflection (IFD). The specimen size shall be 15"x 15" x 4" consisting of a single piece of material. The IFD ranges at 25% deflection, shall be as follows:

Firm 30 - 38

Medium 24 - 29

Soft 18 - 23

d) Fatigue Test - Static Force Loss Test at Constant Deflection Test I1. Sections 77-84 shall be used. After testing, the specimen shall show no breakdown in physical structure. Permanent set (loss in thickness) shall not be more than 5% of the original thickness. The loss in IFD shall not be more than 30%. Use the same size sample as used in (c) above.

3. All polyurethane foam and other padding used in the construction of the seat shall comply with all applicable requirements of State of California Technical Bulletin 117.

**K. BACKS**

Upholstered chair backs shall be padded with adequate quantity, quality, and composition of padding materials in accordance with best industry practice to maintain proper shape and comfort in continued daily use.

All polyurethane foam and other padding used in the construction of the back (and in miscellaneous components) shall comply with all applicable requirements of State of California Technical Bulletin 117.

**L. FINISH**

Unless otherwise called for in the Invitation For Bids, finish shall be as specified on the purchase order, selected from any finish listed as available in the manufacturer's published literature for model offered, and shall be of top quality materials from a reputable furniture finish supplier. It shall be applied in accordance with recommendations of supplier to provide a finish that is durable and uniform in appearance.

**M. MEASUREMENT OF SEAT DEPTH**

Seat depth measurement is to be made in accordance with one of the following procedures, as applicable:

For closed back chairs, seat depth is the horizontal distance, measured along the centerline of the chair, from the forward most point of the upholstered seat cushion to the intersection of the seat cushion with the seat back.

For open back chairs of all types, seat depth is the horizontal distance, measured along the centerline of the chair, from the forward most point of the upholstered seat cushion to the intersection of the seat cushion with a vertical line dropped from the forward most point of the seat back. In chairs in which this vertical line passes rearward of the seat cushion, then the rearmost point of the seat cushion (at the chair's horizontal centerline) becomes the rear limit of seat depth.

Where seat depth as stated in manufacturer's published literature exceeds the dimension as determined by the applicable method above, Vendor shall clearly identify this circumstance in the bid and state the dimension as determined by the above method. In such circumstances the dimension as determined above shall govern on this bid.

In cases where the published literature shows that the seat depth is exactly the dimension required in this specification, it is permissible for sample to be a maximum of 1/8" less than the required seat depth dimension as measured by the above procedures.

**5.5.12 Office Swivel Chairs**

See 5.5.11 above.

**5.5.13 Furniture, Computer**

This specification covers MODULAR COMPUTER WORKSTATION furniture. It is not intended to cover all types of computer furniture, but only the styles and designs most frequently purchased for state agencies, institutions, and the public schools.

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This specification includes basic computer furniture in the form of modular groupings and computer workstations, plus the accessories that are typically associated with a computer workstation. This specification requires that the modular components of the workstations be contained within a product series of a single manufacturer. The components required in a model series are defined in this document.

This specification does not include Office Panel Systems associated with any of these approved series listings. Some manufacturers include complex office panel systems within the same model series. This document refers only to free standing modular workstation furniture. There is a specification for Office panel systems.

This specification does not include Chairs. There are specific term contracts for ergonomic and regular office chairs.

**For Entity information only:** The nature of this commodity lends its-self primarily to an office environment, rather than a classroom environment. Refer to the classroom furniture specification for economical tables that can be used for basic applications using single or multiple computer placements. Different types of furniture have been covered by this specification to provide a choice of grades. The grade span ranges from economy, to executive work stations. The following classification section outlines the various work stations available.

1. **CLASSIFICATION**
2. Definitions of Classification

The computer furniture covered by this specification is defined by the 'Class' and the Style of the unit.

1. Class defines the grade and type of Workstation product (example Economy or Deluxe). There are four Classes, I, II, III, & IV
2. Class I Economy
3. Class II Deluxe
4. Class III Clerical (with limited wire management)
5. Class IV Clerical / Executive (with concealed wire management)
6. Styles define the configuration and manufacturing materials of the base. There are three styles, I, II, III, and IV. All styles shall have a modesty panel.
7. Style I Single tubular steel support pedestal leg base
8. Style II Double tubular steel support pedestal leg base (w/optional fascia)
9. Style III End Panel Design- Wood Product
10. Style IV End Panel Design – Other Than Wood Product

|  |  |  |
| --- | --- | --- |
| A picture containing text, table, furniture, worktable  Description automatically generated | A picture containing table, furniture, worktable, metal  Description automatically generated | A picture containing text, furniture, table, worktable  Description automatically generated |
| **Style I** | **Style II** | **Styles III & IV** |

**(Sketches above are shown to represent the leg verses end panel design. They are not intended to depict any particular manufacturer’s product)**

Within a model series, defined by the Class and style, there are a number of modular components that are compatible with each other.

A series must include, as a minimum but not be limited to, the following modules.

Computer table

This module is the starting block in the creation of a workstation grouping. The other modules are, either attached, placed on, hung from or located adjacent to this module. It provides a work surface(s) for locating the computer, monitor, keyboard and the peripheral equipment. Each table shall be equipped with a modesty panel.

These various options shall be available (Desired option(s) to be specified in the Invitation for Bid.)

A primary single level work surface specified either fixed or adjustable height.

Split level, fixed height work surfaces.

Split level, adjustable height work surfaces.

Bi-level work surfaces with fixed recessed keyboard well and specified left, right or center mounted position.

Bi-level work surface with adjustable recessed well specified left, right or center mounted position. Two height adjustment ranges must be available. One range must provide a keyboard minimum height of 24 inches and adjust to a maximum keyboard height of 27 inches. The other range must provide a keyboard minimum height of 26 inches and adjust to a maximum keyboard height of 30 inches. The desired height adjustment range is to be specified in the Invitation for Bid.

A sub-shelf located under the main work surface.

Casters: 2, 3 or 4 inch diameter wheels.

Wedges or corner pieces: (Desired shape to be specified in the Invitation for Bid).

90-Degree wedge

60-Degree wedge

Square connector wedge

Other connector wedges

Printer stand:

With 2" x 17" minimum paper feed slot with rubber or plastic grommet around periphery of slot to protect the paper.

Without a paper feed slot.

Fully articulated and retractable keyboard with mouse tray.

Overhead Storage Unit: Has retracting flipper doors on integral tracks. Must not interfere with cable management and not rack or deploy unevenly during motion.

Overhead Organizer: A desktop shelf located above the work surface for storage. Must not interfere with cable management.

Pedestals with drawers. Suspension to be with Accuride glides or equivalent.

Pedestal Units:

Hanging pedestal (stationary)

Mobile pedestal.

1. **APPLICABLE STANDARDS**

The following documents of issue in effect on the date of the Invitation for Bids shall form a part of this specification to the extent specified:

National Electrical Manufacturers Assn. (NEMA)

* NEMA LD-3 High-pressure Decorative Laminates

American National Standards Institute (ANSI)

* ANSI Z34.2 Self Certification by Producer or Supplier.
* ANSI/BIFMA X5.5 Office Furnishings, Desk Products: Tests.

1. **REQUIREMENTS**
2. General

All material, construction and assembly of the furniture described herein shall be of a quality generally associated with high level standards of the furniture industry.

Only manufacturer's Standard Products in design, materials, and construction, which have been in production for six months will be considered for evaluation and acceptance. The only exception to this is the addition of threaded inserts in the worktop if applicable

Any questions concerning acceptability of the quality offered shall be the sole decision of the Division of Purchase and Contract.

The material, construction, assembly and finish of the product shall be in accordance with good commercial practices, and entirely suitable for the purpose intended.

Mechanical Joints: Mechanical Joints shall be of the quality and quantity necessary to preclude the loosening of the joint during normal usage and to maximize the strength of the materials being joined.

If metal threaded inserts are not used for an unsupported leg to top attachment, a cut away joint sample must be supplied with a written engineering analysis to validate the strength of the design plus a properly certified document (Certificate of compliance) signed by an officer of the manufacturing company. The proposed design has to be approved by the Division of Purchase and Contract. (Definition of "Unsupported" is a leg that does not have a member, such as a modesty panel or keel, attached to provide vertical stability and prevent relative racking movements to the attachment joint).

The design of the mechanical fasteners shall be of the type and quantity necessary to preclude loosening or tear out from the core material during normal usage. Note: Particleboard and fiberboard have relatively low fastening strength (screw holding capacity).

Knocked down assemblies (where applicable) shall be assembled with mechanical fasteners that are both durable and easy to assemble. Fasteners shall be securely attached to matching parts in such a way that the parts cannot be easily pulled or knocked apart.

Units shipped knocked down shall include assembly instructions and all required hardware. All components shall be properly aligned, and holes pre-drilled for all required assembly (and or metal threaded inserts). Assembly shall require only simple hand tools.

Construction Materials

Core Material (Applies to components manufactured from wood products)

Cores may be of the following types, as specified herein for this application.

Lumber cores shall be of good grade hardwood core stock in random widths of 1" to 4", straight, flat and squared edged before gluing. Discoloration, sound knots, and all defects that are properly patched or filled are acceptable.

Particleboard cores shall be made of wood chips, bonded with a moisture-resistant adhesive, and with a minimum density of 45 lbs/cu. ft.

Fiberboard or MDF cores shall be made from pressed fibers of wood, and with a minimum density of 45 lbs/cu. ft.

Multiple veneer cores (plywood) shall be of balanced cross banded construction, with hardwood veneer cores free of structural defects, and assembled with a moisture-resistant resin adhesive.

Composite cores shall be constructed of steel tube and honeycomb framed with particleboard. Frame shall be bonded with hardboard on top and bottom. (Surfaces are to be covered with High-pressure laminate)

Strawboard with Polybor additive.

Plastic Laminates

High-pressure plastic laminate shall comply with the requirements of NEMA LD-3, grade GP-28 (minimum). Balancing sheet (backers), where applicable shall be at least grade BK-20.

Low pressure plastic laminate panels

These panels are thermally fused panels flat pressed from a thermoset polyester or melamine resin-impregnated web, pressure bonded to a cellulose substrate such as particleboard or fiberboard. The decorative face shall be designed to perform to minimum criteria as set forth in the American Laminators Association Performance Standard for Thermoset Decorative Panels (ALA. 1985)

Hardware.

Visible metal components shall be brass, stainless steel, chrome plated, or coated with epoxy or acrylic enamel.

Adhesives

All adhesives shall be very low in VOC’s and of good commercial quality and suited to the application for which used as recommended by the manufacturer of the adhesive.

COMPONENT CONSTRUCTION REQUIREMENTS

Work Tops

Work tops shall be a minimum of 1" in thickness (core thickness prior to applying laminate and backing sheet).

Exception: Work top thickness may be reduced to 3/4"inch if the core material is 5-ply plywood or reinforced with a 1"inch square 16 gauge steel (minimum) tubular frame.

Core Materials: See Section IV. B.1

Work top surfaces shall be high-pressure plastic laminate, minimum NEMA GP28 (0.28" thick) and conforming to NEMA Standards Publication No. LD 3 (latest issue). A backing sheet shall be applied to the underside to provide a balanced construction

Work top edges shall have Vinyl "T", 3mm PVC or bullnose edging, securely attached to the tops by barbed tongue inserted into a groove or an equivalent edging type. Either type must be securely attached to preclude pull out (where both ends meet) under normal use. Ends must terminate on a long side, preferably in the middle, and to the rear (away from Entity) when installed.

Work top corners shall be rounded.

Work top heights (measured from the floor)

All Classes & Styles to be available in both 26.5" (nominal) and 29.0" (nominal) inches work top heights. Infinitely adjustable height tables must self-lock or be lockable and the table surface must remain free of any projections (adjustment crank) except while the height is being adjusted.

7. Work Top Depths:

A 24” depth (minimum) must be offered.

8. Work Top Widths:

Work top widths must be available from 30” to 72” in 6” increments.

Support Pedestals:

Minimum steel gauge requirements for main support members shall be as follows:

Class I & II: 19 Gauge Steel

Class III: 18 Gauge Steel

Class IV: 16 Gauge Steel

The base and top support units must be welded to the upright support member. Style I shall have a single upright support member. Style II shall have a double upright support member. The vertical and base support members shall be tubular steel (round or rectangular).

Style III shall have end panels as described in Section V.D.5.

All support pedestals shall be securely attached and braced to form a sturdy unit free from racking.

All exposed edges of tubular members shall be provided with caps that cannot be easily removed.

Glides:

All units shall be provided with adjustable non-rust glides. Glides that have threaded metal inserts, of proper length and diameter, to be securely imbedded into end panels. Glides must not be easily pulled out of end panels. Glides shall be non-marring to prevent damage to floors.

Panel End Desks:

All panel end desks shall meet the requirements of ANSI/BIFMA 5.5 Office Furnishings, Desk Products: Tests.

Metal End Panel Products shall be constructed in such a manner as to adequately support work surfaces and associated components.

Support End Panels for wood end panel products (both half and full panel) shall be a minimum of 3/4" in thickness.

Core Materials: See Section IV. B.1

End Panel surfaces (Wood) shall be finished with either:

High-pressure plastic laminate, minimum NEMA GP28 (0.028 inches thick)

Low pressure plastic laminate.

Both faces of end panels shall be treated as decorative surfaces therefore they shall be laminated with the finish plastic.

Exposed end panel edges (Wood) shall be banded with the plastic laminate consistent with the end panel faces.

Casters

When called for in the Invitation for Bids, two (2) lockable swivel and two (2) fixed heavy duty casters shall be furnished. Casters will not be acceptable on full panel ends without securely fastened reinforcing members along the bottom edge. IFB will specify size of casters.

FINISH

Colors and finish shall be manufacturer's standard. All metal finishes and laminate backing sheets shall be compatible with the panel and top colors and contain very low VOC’s.

**5.5.14 Chairs, Metal Folding**

This specification covers metal folding chairs generally used by State institutions and agencies. They are categorized as Standard or Medium Duty. Heavy duty chairs are not covered in this specification

1. **CLASSIFICATION**

Chairs provided under this specification may be either tubular or double-beaded channel with metal seat and metal back. They are categorized Standard or Medium Duty

1. **REQUIREMENTS**

A. STEEL

The steel used in the fabrication of the chairs shall be commercial quality, cold rolled and shall be bright, smooth, free from scale, pits, wrinkles, laps, crimps and buckles affecting strength. All steel tubing shall be seamless, or continuously seam welded.

B. DESIGN

The structural design of the chairs shall be such that any sustained and impact weight will be uniformly distributed on all supporting parts with no excessive strain on any one or pair of supporting parts under normal usage. When in use, the chair shall not collapse due to a shift in weight of the Entity. The folding mechanism shall be of such design as to guard against personal injury and snagging or tearing of clothing. The design shall be such that one person can easily fold and unfold the chairs. The chairs shall fold compactly to permit stacking directly over one another in a free standing pile.

C. WELDING AND BRAZING

All welding and brazing shall accomplish rigid joints in proper alignment. Welds shall be sound without porosity and form rigid one piece units of sufficient strength to meet the prescribed tests, without any parts that will work loose or affect the use of the item during use, and to withstand rough handling in moving.

D. SHOES

The chair legs shall be provided with replaceable shoes made of good quality rubber or other resilient material which will not mar floors and is resistant to sliding. The shoes and chair legs shall be so fabricated that cutting or shearing of the shoes during usage of the chairs will be held to a minimum. Color of shoes shall harmonize with the color finish of the chair.

E. HINGE POINTS

Hinge points required to accomplish folding shall be sturdily constructed and free of appreciable wear or deformation after repeated use of the chair.

F. ENDS OF REAR LEGS

Top end of rear legs shall have metal or other suitable caps installed so they are not removable manually without tools.

G. SEAT

The seat shall be fabricated from a single piece of sheet steel and shall be formed in such a manner to be form fitting and to provide strength and rigidity and to eliminate sharp edges.

H. BACKREST

The backrest shall be not less than 6" high, and fabricated from a single piece of sheet steel, to a comfortable form-fitting shape. All edges shall be formed to provide maximum strength to the back. There shall be no sharp exposed edges. The lower edge of the back shall be not more than 11" above the seat.

I. FINISH

Metal surfaces including unexposed surfaces when chair is in normal use position shall be thoroughly degreased chemically and cleared of all mill scale, rust, and all welds ground smooth and primed with zinc chromatic or phosphate. Entire chair to be finished with a enamel paint. Total dry film thickness of enamel alone shall be not less than 1 mil. The finish shall level out to produce smooth, uniform exposed surfaces without runs, wrinkles, grits, areas of thin film or no film and separation of color. The finish shall withstand the test specified. Vendors shall list colors available at no change in bid price.

J. WORKMANSHIP

Finished chairs shall be neat, clean and well tailored and shall be free from any defects that affect the appearance or the serviceability of the chairs, or the safety of the Entity. Chairs shall fold smoothly and quietly.

K. IDENTIFICATION

Each chair shall be marked in a plain, permanent, and inconspicuous manner with the manufacturer's name or trade-mark of such known character that the source of manufacture and the product may be readily determined.

**5.5.15 Tables, Folding**

This specification covers requirements for folding tables for use in state agencies, institutions and public schools. It is intended to cover the type tables generally required but is not intended to cover all varieties of designs available.

* **CLASSIFICATION**

Folding tables covered by this specification shall be classified as follows:

1. TYPE I - Tables with high-pressure laminate top.
2. Class A - Solid core
3. Class B - Honeycomb Core
4. TYPE II - Tables with wood, plywood, particleboard, or pressed board top, finished without high-pressure laminate top.
5. Class A - Solid Core
6. Class B - Honeycomb Core
7. TYPE III – Lightweight Tables with ABS plastic top.

* **APPLICABLE STANDARDS**

The following documents of issue in effect on the date of the Invitation for Bids shall form a part of this specification to the extent described in REQUIREMENTS:

National Electrical Manufacturer's Association (NEMA)

* NEMA Standard LD-3
* **REQUIREMENTS**
  1. TOPS

1. Type I Tops - All type I tops shall be surfaced with thermosetting high-pressure plastic laminate meeting the requirements of NEMA LD3, grade GP50. The underside of tops shall be surfaced with NEMA grade plastic backer sheet or other suitable backing sheet providing balanced construction.
   1. Type I, Class A top construction shall have cores of minimum 5/8" 5 ply plywood, 3/4" 45 lb. density flakeboard or 3/4" 60 lb. density fiberboard. Finished tops with plywood core shall be minimum 11/16" thick, others minimum 13/16" thick. Edges shall be as described under "edging" below.
2. Type I, Class B top construction shall be minimum 5/8" fiber honeycomb material of adequate rigidity and strength to support sandwich construction when securely glued in place. The core shall be rimmed with solid wood, 45 lb. density flakeboard or 60 lb. density fiberboard. The rim strips shall be not less than 3" wide and shall be joined only at the corners. Inserts shall be provided as necessary for leg attachment. Finished thickness shall be minimum 11/16". Edges shall be as described under "Edging" below.
3. Type II Tops - All type II tops shall be surfaced with low-pressure plastic laminate, vinyl sheet or acrylic or varnish topcoat. The underside of the tops shall be finished with low pressure plastic, vinyl sheet or sprayed sealer coat.
4. Type II, Class A top construction shall have cores of minimum 5/8" 5 ply plywood, 3/4" 45 lb. density flakeboard or 3/4" 60 lb. density fiberboard. Finished tops shall be minimum 11/16” and 13/16” thick respectively. Edges shall be as described under "edging" below.
5. Type II, Class B top construction shall have a core of minimum 5/8" fiber honeycomb material of adequate strength and rigidity to support sandwich construction. The honeycomb shall be sandwiched between two layers of 1/4" fiberboard. The core shall be rimmed with solid wood, flakeboard or fiberboard strips not less than 3" wide. Inserts shall be provided as necessary for leg attachment. Finished thickness shall be minimum 7/8" thick. Edges shall be as described under "Edging" below.
6. Type III, top shall be constructed from ABS plastic with a multi-layered core material of adequate strength and rigidity. The tabletop shall be rimmed with a metal or wood apron. Inserts shall be provided as necessary for leg attachment. Edges shall be as described under "Edging" below.
   1. EDGING

Edgings for Type I tables: Edging for the tables shall be 3mm thick (minimum) PVC vinyl, or similar material, molding permanently bonded to the sides to create an edge-sealed condition. Gapless construction is necessary to prevent liquids and food solids from attacking the core and collecting at the seams.

Edgings for Type II tables shall be as specified for Type I, but may also include aluminum molding properly applied with screws or drive screws, or securely fastened with blind type fasteners. Aluminum molding not recommended in food serve applications.

Edgings for Type III tables shall be manufacturers standard edging.

* 1. APRON

Tabletop shall be supported by a steel channel or wood apron securely attached to the top with screws or expanding rivets. Minimum width of apron shall be 1-3/4"(45mm).

* 1. LEGS

Legs shall be pedestal type of tubular steel. Top crossbar and uprights shall be 1" (25.44mm) O.D. and minimum 18 gauge. The lower pedestal section shall be 1" (25.4mm) O.D. and have minimum 16-gauge steel. Legs shall be of adequate design and braced to insure stability. Floor end of legs shall be covered with a non-marking shoe.

* 1. FOLDING MECHANISM

Table legs shall open and close in a single operation. The legs shall be positive locking in both open and closed position. Various locking methods such as gravity or spring lock may be used. In the closed position no part of the mechanism shall protrude beyond the apron. In the open position the mechanism shall be such that it cannot be released by pressing with foot or knee by person seated at the table.

* 1. FINISH

The tops on Type II tables shall be a wood or plastic finish highly resistant to caustics, scuffing and abrasion. All metal parts on all tables shall be zinc phosphatized and finished with high-grade enamel to provide high resistance to caustics, scuffing and abrasion.

* 1. CONSTRUCTION

Construction shall indicate first quality workmanship throughout and all fastening done in a manner acceptable in good industry practice. All metal edges shall be deburred to prevent cuts or scratches in handling and in unfolding or folding tables.

* 1. LIGHTWEIGHT TABLES TYPE III

To fit into the Lightweight category the tables must not exceed the weights listed in the table below

|  |  |
| --- | --- |
| **Table top size (inches)** | **Not to exceed weight (pounds)** |
| 18x96 | 42 |
| 18x72 | 35 |
| 24x96 | 47 |
| 24x72 | 40 |
| 30x96 | 54 |
| 30x72 | 48 |
| 30x60 | 45 |
| 36x96 | 63 |
| 36x72 | 52 |
| 60Round | 56 |
| 72Round | 82 |

**5.5.16 Tables, Mobile, Folding**

This specification covers requirements for Mobile Folding Tables for cafeteria use in State agencies, institutions and public schools. These tables are to be hinged in the center of the top surface and at appropriate points on the leg apron support structure so that the unit can be collapsed (folded) into a smaller envelope for storage. When the table is in the folding mode it shall automatically expose castors to support the entire table so it can be easily moved to another location. Provisions must be made to prevent "Tip Over" on the longer tables when folded. When the table is opened and in use the static weight shall provide sufficient downward component force bearing on the floor to prevent the table from being easily moved. This specification is intended to cover the type tables generally required but is not intended to cover all varieties of designs available.

1. **CLASSIFICATION**

Mobile Folding Tables covered by this specification shall be classified as follows:

STYLE I: Table unit with high-pressure laminate surfaced solid core top and attached benches.

STYLE II: Table unit with high-pressure laminate surfaced solid core top and attached stools.

STYLE III: Table unit with high-pressure laminate surfaced solid core top without attached benches or stools.

1. **APPLICABLE STANDARDS**

The following documents of issue in effect on the date of the Invitation for Bids shall form a part of this specification to the extent described in Requirements Section.

National Electrical Manufacturer's Association (NEMA)

* NEMA Standard LD-3

1. **REQUIREMENTS**
2. **GENERAL**

Products furnished per this document shall meet or exceed the following requirements:

All table units shall be new, unused, and a currently standard product of an established manufacturer except for such deviations as may be required by this document or the Invitation for Bids.

All table units shall meet the safety standards and be listed by Underwriters Laboratories. Your product UL listing number shall be provided with the bid response.

All table units shall present a neat, well-finished appearance inside and outside and shall be free from all imperfections and/or defects, which might affect appearance, normal life, or serviceability.

All metal parts shall be inherently corrosion resistant, or suitability treated to resist corrosion.

Plastic surfaces shall be free from ripples and thin spots, and have a bright colorfast appearance.

Construction shall indicate first quality workmanship throughout and all fastening done in a manner acceptable in good industry practice.

Tabletops and seats shall have rounded corners. All metal edges shall be deburred to prevent cuts or scratches in handling and in unfolding or folding tables.

1. **TABLETOPS**

All style tops shall be surfaced with thermosetting high-pressure plastic laminate meeting the requirements of NEMA LD3, grade GP28 (0.028”). The underside of tops shall be surfaced with NEMA grade plastic backer sheet or other suitable backing sheet providing balanced construction.

Top construction shall have cores of minimum 5/8" 5 ply plywood, 3/4" 45 lb. density flakeboard or 3/4" 60 lb. density fiberboard. Edges shall be as described under "edging" below. The tabletop height shall be not less than 27 inches and not greater than 30 inches measured perpendicular to floor.

1. **EDGING**

Edging for the tables shall be 3mm thick (minimum) PVC vinyl, or similar material, molding permanently bonded to the sides to create an edge-sealed condition. Gapless construction is necessary to prevent liquids and food solids from attacking the core and collecting at the seams.

1. **APRON**

Tabletop shall be supported by a steel channel or apron, securely attached to the top with mechanical fasteners designed for use with the core materials of the tabletops specified. The framework shall be constructed of structural steel having sufficient cross sectional area to withstand the table load and a sectional modulus that will provide a solid rigid top support. Where applicable it shall be unitized by electric arc welding.

The support channel or apron shall be of minimum width necessary to accommodate the folding mechanism attachment points and maintain a rigidity and structural strength as required in this application.

1. **TABLE LEGS**

Legs shall be manufactured from tubular steel and shall be of adequate design and braced to ensure stability (non-racking) under normal use as required in this application. Floor end of legs shall be covered with a non-marking shoe or glides. The shoe or glides shall not be easily removed without tools.

1. **FOLDING MECHANISM**

Table legs shall open and close in a single operation. The legs shall be positive locking in both open and closed position. Various locking methods such as gravity or spring lock may be used. In the closed position parts protruding beyond the apron shall be kept to a minimum. In the open position the mechanism shall be such that it cannot be released by pressing with a foot or knee by a person seated at the table. Provision must be made to make the table easy to fold by one or two persons. When necessary (on longer tables), a "load balancing" feature should be incorporated. During the folding operation there must be clearance between adjacent structural members. Steel on steel interference is not acceptable. Casters shall be located at the outer most corners of the unit when in a closed/folded mode. When the table is opened and in use the static weight shall provide sufficient downward component force bearing on the floor to prevent the table from being easily moved.

1. **CASTERS**

The table units shall be provided with 3-inch minimum diameter swivel type casters. The caster wheel peripheral surface shall be manufactured from hard rubber or suitable equivalent that will not mar or mark the floor.

1. **STYLE I BENCH SEATS (Permanently Attached)**

STYLE I table units shall be supplied with permanently attached bench seats that are an integral part of the folding mechanism. As the table is folded the benches must move in unison until reaching the fully folded/closed position. The benches shall be manufactured from the same material as specified for the table top (See Paragraph III.A., Paragraph III.B.). The bench seat height shall not be less than 15 inches and not greater than 18 inches measured perpendicular to the floor. Provision must be made to prevent sagging of the bench, such as, a steel longitudinal "stretcher" support member or equivalent. The benches shall be free from sharp, rough edges, or protruding parts that might snag clothing or cause injury.

1. **STYLE II STOOLS (Permanently Attached)**

STYLE II table units shall be supplied with permanently attached stool support structure that is an integral part of the folding mechanism. As the table is folded the stools must move in unison until reaching the fully folded/closed position. The stools shall be manufactured from high impact plastic and securely attached to the support structure. The stool height shall be not less than 15 inches and not greater than 18 inches measured perpendicular to the floor. The stools shall be free from sharp, rough edges, or protruding parts that might snag clothing or cause injury.

1. **STYLE III TABLE WITHOUT BENCHES OR STOOLS**

STYLE III table units shall be supplied without permanently attached benches or stool seating.

1. **FINISH (Metal Parts)**

All metal parts shall be inherently corrosion resistant, or suitably treated to resist corrosion. Product should be available either painted, chrome plated or a combination of both as required in the Invitation for Bids.

Painted: All painted surfaces shall be thoroughly cleaned and free of dirt, oil, grease, moisture, or other foreign matter prior to painting.

After cleaning, the frame shall be coated with a paint-bond coating and a rust inhibitor compatible with the top or finish coat. The finish coat shall consist of a high temperature enamel applied and baked in accordance with the paint manufacturer's recommendations (or the manufacturer's standard acrylic/epoxy based enamel coating or comparable quality). The enamel shall be the non-chipping type. There shall be no indication of rust or decay under the coating. An equivalent thermoset epoxy resin dry powder coating, electro statically applied, shall also be acceptable.

Chrome Plated: All electro-plated chrome finishes shall be subjected to the manufacturer's standard electrical and chemical cleaning process. Chrome shall be plated over a nickel base. The chrome shall be corrosion and chip resistant.

**5.5.17 Mobile Storage Equipment, Folding Chairs**

There is no standard specification for this item.

**5.5.18 Lounge Seating, Upholstered (Matching Sofa, Loveseat, Chair Only)**

This specification covers upholstered Lounge seating as defined herein, of traditional, transitional, and contemporary design. Ganged and sectional multiple seating, dining room tables and seating, high abuse and other types of seating are not covered by this specification.

1. **CLASSIFICATION**

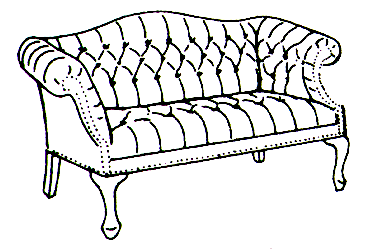
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A black and white drawing of a chair

Description automatically generated with medium confidence  A picture containing seat

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A picture containing linedrawing

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The furniture covered by this specification is intended to be used in offices, conference rooms, reception or waiting areas, and can be of traditional, transitional, and contemporary design. It is a commercial application, where furniture designed for residential use is not acceptable.

The lounge seating offered must include a matching set of items, sofa, love seat, and lounge chair. A manufacturer who cannot supply matched sets may not be considered.

Class I: Traditional

Class II: Transitional

Class III: Contemporary

1. **APPLICABLE SPECIFICATIONS AND STANDARDS**

Referenced specifications and standards shall be the latest issue in effect of the date of the Invitation For Bids. Copies of referenced materials may be obtained from the issuing organizations at the addresses shown. The documents below form a part of this specification. All sofas shall comply with all applicable provisions of each such document, including but not limited to particular provisions therein which may be called out elsewhere in this specification.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

* ANSI/BIFMA X5.4-2005. American National Standard for Office Furnishings --- Lounge Seating ---Tests
* ANSI Z34.2-1987. American National Standard for Certification. Self-Certification by Producer or Supplier.
* ANSI A208.1- Particleboard
* ANSI A208.2- Medium Density Fiberboard (MDF)
* ANSI/HPVA HP-1 Hardwood and Decorative Plywood

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

* ASTM D 3597-02 Standard Specifications for Woven Upholstery. Fabrics - Plain, Tufted, or Flocked
* ASTM D 4157-02 Standard Test Method for Abrasion Resistance of Textile Fabrics (Oscillatory Cylinder Method)
* ASTM D3574-05 Standard Test Methods for Flexible Cellular Materials--Slab, Bonded, and Molded Urethane Foams
* ASTM D905 Standard Test Method for Strength Properties of Adhesive Bonds in Shear by Compression Loading

FEDERAL SPECIFICATIONS.

* Federal Test Method Standard No. 191A, Method 5903.1, Flame Resistance of Cloth; Vertical

OTHER

* Technical Bulletin 117. Requirements, Test Procedure and Apparatus for Testing the Flame Retardance of Resilient Filling Materials Used in Upholstered Furniture

1. **REQUIREMENTS**
2. SEATING CONFIGURATION

The seating shall include a sofa, loveseat, and chair. The items will be listed in three categories: traditional, transitional, and contemporary design.

Each item shall be upholstered:

1. with wood or metal legs or, can have a plinth base or,
2. with exposed closed wood or metal base and or
3. with tight or loose backs or attached pillar backs and or
4. with exposed reveals, metal or wood trim.
5. WOOD PARTS

All woods used in the construction of seating under this specification shall be of a suitable hardwood species. All woods used shall be kiln dried to a moisture content of 6-10 percent before machining.

1. Exposed Wood Parts

All exposed wood parts shall be clear cutting and free of knots, splits, or checks. Unless otherwise called for in the Invitation For Bids, species shall be as specified on the purchase order, and will be selected from any species listed as available in the manufacturer's published literature for model offered.

2. Interior Wood Parts

Interior wood parts shall be of suitable hardwoods free of any defects that may affect the structural integrity of the furniture.

3. Steam Bent Wood Parts

Steam bent wood parts shall be of specie suitable for bending and if exposed shall have grain and finishing characteristics similar to other exposed wood parts.

1. GLIDES

The seating shall be equipped with either adjustable or nail type glides, minimum 3/4" diameter (nominal), with caps of rustproof material. Glides less than 11/16" in diameter at the largest cross-section are not acceptable. Nylon or other durable composition may be used in lieu of nickel or chrome plated steel.

1. GLUE

Glue shall be of good commercial quality, and gluing processes shall be according to best industry practice to assure joints of maximum strength per ASTM D905.

1. UPHOLSTERY

All fabrics used in upholstering the furniture shall comply with all applicable requirements in ASTM D 3597-02. When tested by Method 5903.1, in Federal Test Method Standard No. 191A, fabric shall not exceed two seconds after-flame time nor exceed a char length of 3".

If a 100% nylon fabric is specified on the purchase order, then unless otherwise allowed or called for, such fabric is to be minimum 14 oz. per lin. yd. (54" width) and is to meet the surface abrasion requirement for heavy-duty fabric (i.e. 40,000 double-rub cycles) in ASTM D 3597-02 when tested in accordance with ASTM D 4157-02.

All upholstery tailoring shall be performed in accordance with accepted best industry practice. Appearance shall likewise be typical of results obtained by such tailoring techniques. Patterns, where used, should be in proper alignment between the various upholstered surfaces of the seating. Seams should not be placed on a heavy-wear location of the furniture (such as on the centerline of the upper surface of the arm). Any double needle seam stitching should be tape re-enforced.

1. JOININGS

All joints and joining of furniture shall be done in a secure and rigid manner in accordance with best industry practice. Dry joints, poorly fitted joints, or joints where glue appears on a finished surface are not acceptable. All exposed screws and bolts that are not decorative shall be countersunk and plugged for finished appearance except where established as part of the design and shown acceptable by customer usage. Dowels, tenons, chucking and boring with adequate glue applied shall be used where applicable, with appropriate mechanical reinforcements used where necessary and practical. Reinforcing cleats and/or corner blocks, glued and screwed, shall be used where necessary for secure fastening.

1. SEATS
2. The following types of seat suspension systems are acceptable: drop-in prefab metal spring units, sinusoidal "No-Sag" type, sinusoidal wire helical coil, conventional eight-way hand tied coil springs, "woven mesh" type web construction, and "permanent sheeting" type construction (where the suspension is cut as one continuous sheet rather than from wide strips which are then woven together as in the woven mesh construction). However, the suspension system provided must be the standard type for the model offered, unless specifically otherwise allowed in the Invitation For Bids or requested by the Entity. All springs shall be adequately tied and covered with padding of quality and composition acceptable in best industry practice. Padding shall be such that the seat maintains proper shape and comfort in continued daily use.
3. Polyurethane foam, which may be contained in the furniture seat, must meet the following requirements:

The urethane foam shall be a flexible high resiliency polyurethane material suitable for use as furniture cushioning. It shall be manufactured from pure polyether type polyurethane without the addition of fillers. Pigments may be used to designate grades etc. The foam shall be open cell structure, 100% new material, and shall be such that odors and absorbed materials from alcohol, body fluids, and other substances shall be readily removed by washing with soap and mild detergents without damage to the urethane foam.

Urethane shall be tested in accordance with ASTM-3574, and shall conform to the following minimum standards (Section numbers refer to the D3574-05 issue):

* 1. Density - The procedure as outlined in Sections 9-14 shall be followed to determine the density. The minimum density shall be 1.8 lbs/cu.ft. (28.8 kg/cu. m) for seats. The minimum density for backs and miscellaneous padding shall be 1.5 lbs/cu.ft. (24.0kg/cu. m).
  2. Compression Set - Constant Deflection-Sections 37-44 shall be used to determine the compression set. The maximum set shall be 10% of the original thickness of the specimen when compressed to 90%. Report this value as Ct.
  3. Load Deflection - Indentation Force Deflection Test- Specified Deflection Test B1. Sections 16-21 shall be used to determine the Indentation Force Deflection (IFD). The specimen size shall be 15"x 15" x 4" consisting of a single piece of material. The IFD ranges at 25% deflection, shall be as follows:

Firm 30 – 38

Medium 24 – 29

Soft 18 – 23

* 1. Fatigue Test - Static Force Loss Test at Constant Deflection Test I1. Sections 77-84 shall be used. After testing, the specimen shall show no breakdown in physical structure. Permanent set (loss in thickness) shall not be more than 5% of the original thickness. The loss in IFD shall not be more than 30%. Use the same size sample as used in (c) above.

1. All upholstery materials including polyurethane foam, webbing, and other padding used in the construction of the seat shall comply with all applicable requirements of State of California Technical Bulletin 117.
2. BACKS

Upholstered backs shall be padded with adequate quantity, quality, and composition of padding materials in accordance with best industry practice to maintain proper shape and comfort in continued daily use.

All polyurethane foam and other padding used in the construction of the back (and in miscellaneous components) shall comply with all applicable requirements of State of California Technical Bulletin 117.

**5.5.19 Lounge Seating, Upholstered (Sectional and Ganged Seating Only)**

This specification covers upholstered Lounge seating as defined herein. Sofas, loveseats, lounge chairs, dining room tables and seating, high abuse and other types of seating are not covered by this specification.

1. **CLASSIFICATION**

The furniture covered by this specification is intended to be used in offices, conference rooms, reception or waiting areas, and can be of traditional, transitional, and contemporary design. It is a commercial application, where furniture designed for residential use is not acceptable.

**Sectional:** The sectional seating offered must have modular sections that consist of (at least) a corner, straight, wedge, ottoman, “inside and outside” table units that when placed side by side, with the modules mixed and matched, they form custom configurations Modular units shall be adaptable for multiple seating or separates. The units shall be completely upholstered or may show an exposed plinth base.

**Multiple Seating/Benches:** The seating offered shall have wood or metal frames and legs. The units shall be provided with or without backs or in any combination thereof plus small table sections can be placed within the grouping.

|  |  |
| --- | --- |
| A picture containing furniture, sofa, seat, indoor  Description automatically generated | A row of chairs  Description automatically generated with low confidence |
| Diagram  Description automatically generated | Diagram  Description automatically generated |
| **SECTIONAL MODULAR UNITS** | **MULTIPLE SEATING/BENCHES** |

1. **APPLICABLE SPECIFICATIONS AND STANDARDS**

Referenced specifications and standards shall be the latest issue in effect of the date of the Invitation For Bids. Copies of referenced materials may be obtained from the issuing organizations at the addresses shown. The documents below form a part of this specification. All seating shall comply with all applicable provisions of each such document, including but not limited to particular provisions therein which may be called out elsewhere in this specification.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

* ANSI/BIFMA X5.4-2005. American National Standard for Office Furnishings --- Lounge Seating ---Tests
* ANSI Z34.2-1987. American National Standard for Certification. Self-Certification by Producer or Supplier.
* ANSI A208.1- Particleboard
* ANSI A208.2- Medium Density Fiberboard (MDF)
* ANSI/HPVA HP-1 Hardwood and Decorative Plywood

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

* ASTM D 3597-02 Standard Specifications for Woven Upholstery. Fabrics - Plain, Tufted, or Flocked
* ASTM D 4157-02 Standard Test Method for Abrasion Resistance of Textile Fabrics (Oscillatory Cylinder Method)
* ASTM D3574-05 Standard Test Methods for Flexible Cellular Materials--Slab, Bonded, and Molded Urethane Foams
* ASTM D905 Standard Test Method for Strength Properties of Adhesive Bonds in Shear by Compression Loading

FEDERAL SPECIFICATIONS.

* Federal Test Method Standard No. 191A, Method 5903.1, Flame Resistance of Cloth; Vertical

OTHER

* Technical Bulletin 117. Requirements, Test Procedure and Apparatus for Testing the Flame Retardance of Resilient Filling Materials Used in Upholstered Furniture

1. **REQUIREMENTS**
2. WOOD PARTS

All woods used in the construction of seating under this specification shall be of a suitable hardwood species. All woods used shall be kiln dried to a moisture content of 6-10 percent before machining.

1. Exposed Wood Parts: All exposed wood parts shall be clear cutting and free of knots, splits, or checks. Unless otherwise called for in the Invitation For Bids, species shall be as specified on the purchase order, and will be selected from any species listed as available in the manufacturer's published literature for model offered.
2. Interior Wood Parts: Interior wood parts shall be of suitable hardwoods free of any defects that may affect the structural integrity of the furniture.
3. Steam Bent Wood Parts: Steam bent wood parts shall be of specie suitable for bending and if exposed shall have grain and finishing characteristics similar to other exposed wood parts.
4. GLIDES

The seating shall be equipped with either adjustable or nail type glides, minimum 3/4" diameter (nominal), with caps of rustproof material. Glides less than 11/16" in diameter at the largest cross-section are not acceptable. Nylon or other durable composition may be used in lieu of nickel or chrome plated steel.

1. GLUE

Glue shall be of good commercial quality, and gluing processes shall be according to best industry practice to assure joints of maximum strength per ASTM D905.

1. UPHOLSTERY

All fabrics used in upholstering the furniture shall comply with all applicable requirements in ASTM D 3597-02. When tested by Method 5903.1, in Federal Test Method Standard No. 191A, fabric shall not exceed two seconds after-flame time nor exceed a char length of 3".

If a 100% nylon fabric is specified on the purchase order, then unless otherwise allowed or called for, such fabric is to be minimum 14 oz. per lin. yd. (54" width) and is to meet the surface abrasion requirement for heavy-duty fabric (i.e. 40,000 double-rub cycles) in ASTM D 3597-02 when tested in accordance with ASTM D 4157-02.

All upholstery tailoring shall be performed in accordance with accepted best industry practice. Appearance shall likewise be typical of results obtained by such tailoring techniques. Patterns, where used, should be in proper alignment between the various upholstered surfaces of the seating. Seams should not be placed on a heavy-wear location of the furniture (such as on the centerline of the upper surface of the arm). Any double needle seam stitching should be tape re-enforced.

1. JOININGS

All joints and joining of furniture shall be done in a secure and rigid manner in accordance with best industry practice. Dry joints, poorly fitted joints, or joints where glue appears on a finished surface are not acceptable. All exposed screws and bolts that are not decorative shall be countersunk and plugged for finished appearance except where established as part of the design and shown acceptable by customer usage. Dowels, tenons, chucking and boring with adequate glue applied shall be used where applicable, with appropriate mechanical reinforcements used where necessary and practical. Reinforcing cleats and/or corner blocks, glued and screwed, shall be used where necessary for secure fastening.

1. SEATS
2. The following types of seat suspension systems are acceptable: drop-in prefab metal spring units, sinusoidal "No-Sag" type, sinusoidal wire helical coil, conventional eight-way hand tied coil springs, "woven mesh" type web construction, and "permanent sheeting" type construction (where the suspension is cut as one continuous sheet rather than from wide strips which are then woven together as in the woven mesh construction). However, the suspension system provided must be the standard type for the model offered, unless specifically otherwise allowed in the Invitation For Bids or requested by the Entity. All springs shall be adequately tied and covered with padding of quality and composition acceptable in best industry practice. Padding shall be such that the seat maintains proper shape and comfort in continued daily use.
3. Polyurethane foam, which may be contained in the furniture seat, must meet the following requirements:

The urethane foam shall be a flexible high resiliency polyurethane material suitable for use as furniture cushioning. It shall be manufactured from pure polyether type polyurethane without the addition of fillers. Pigments may be used to designate grades etc. The foam shall be open cell structure, 100% new material, and shall be such that odors and absorbed materials from alcohol, body fluids, and other substances shall be readily removed by washing with soap and mild detergents without damage to the urethane foam.

Urethane shall be tested in accordance with ASTM-3574, and shall conform to the following minimum standards (Section numbers refer to the D3574-05 issue):

* 1. Density - The procedure as outlined in Sections 9-14 shall be followed to determine the density. The minimum density shall be 1.8 lbs/cu.ft. (28.8 kg/cu. m) for seats. The minimum density for backs and miscellaneous padding shall be 1.5 lbs/cu.ft. (24.0 kg/cu. m).
  2. Compression Set - Constant Deflection-Sections 37-44 shall be used to determine the compression set. The maximum set shall be 10% of the original thickness of the specimen when compressed to 90%. Report this value as Ct.
  3. Load Deflection - Indentation Force Deflection Test- Specified Deflection Test B1. Sections 16-21 shall be used to determine the Indentation Force Deflection (IFD). The specimen size shall be 15"x 15" x 4" consisting of a single piece of material. The IFD ranges at 25% deflection, shall be as follows:

Firm 30 – 38

Medium 24 – 29

Soft 18 – 23

* 1. Fatigue Test - Static Force Loss Test at Constant Deflection Test I1. Sections 77-84 shall be used. After testing, the specimen shall show no breakdown in physical structure. Permanent set (loss in thickness) shall not be more than 5% of the original thickness. The loss in IFD shall not be more than 30%. Use the same size sample as used in (c) above.

1. All upholstery materials including polyurethane foam, webbing, and other padding used in the construction of the seat shall comply with all applicable requirements of State of California Technical Bulletin 117.
2. BACKS

Upholstered backs shall be padded with adequate quantity, quality, and composition of padding materials in accordance with best industry practice to maintain proper shape and comfort in continued daily use.

All polyurethane foam and other padding used in the construction of the back (and in miscellaneous components) shall comply with all applicable requirements of State of California Technical Bulletin 117.

**5.5.20 Chairs, Dining, Hospitality, General Purpose (Wood, Upholstered Type)**

This specification covers upholstered Chairs as defined herein, of traditional, transitional, and contemporary design. Upholstered wood office side chairs and upholstered wood non-ergonomic swivel-tilt desk chairs, ganged and sectional multiple seating, high abuse and other types of seating are covered by separate specifications.

1. **CLASSIFICATION**

The furniture covered by this specification is intended to be used in offices, conference rooms, dining rooms, reception or waiting areas, and can be of traditional, transitional, and contemporary design. It is a commercial application, where furniture designed for residential use is not acceptable. It is not intended for use in a high abuse institutional environment. These chairs are defined or named differently by different manufacturers. They are called General-purpose chairs, or hospitality chairs, or dining chairs, or side chairs.

A picture containing seat, furniture, chair

Description automatically generated A table covered in snow

Description automatically generated with low confidence A picture containing furniture, seat, chair

Description automatically generated A close-up of a ladder

Description automatically generated with low confidence A picture containing seat, furniture, chair

Description automatically generated A picture containing furniture, seat, chair, table

Description automatically generated

1. The chairs shall be classified as:
2. Type I Non-Stacking
3. Type II Stacking
4. **APPLICABLE SPECIFICATIONS AND STANDARDS**

Referenced specifications and standards shall be the latest issue in effect of the date of the Invitation For Bids. Copies of referenced materials may be obtained from the issuing organizations at the addresses shown. The documents below form a part of this specification. All chairs shall comply with all applicable provisions of each such document, including but not limited to particular provisions therein which may be called out elsewhere in this specification.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

* ANSI Z34.2-1987. American National Standard for Certification. Self-Certification by Producer or Supplier
* ANSI/BIFMA X5.1-2002. American National Standard for Office Furnishings --- General-Purpose Office Chairs ---Tests
* ANSI A208.1- Particleboard
* ANSI A208.2- Medium Density Fiberboard (MDF)
* ANSI/HPVA HP-1 Hardwood and Decorative Plywood

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

* ASTM D3574-05 Standard Test Methods for Flexible Cellular Materials--Slab, Bonded, and Molded Urethane Foams
* ASTM D 3597-02 Standard Specifications for Woven Upholstery. Fabrics - Plain, Tufted, or Flocked
* ASTM D 4157-02 Standard Test Method for Abrasion Resistance of Textile Fabrics (Oscillatory Cylinder Method)
* ASTM D905 Standard Test Method for Strength Properties of Adhesive Bonds in Shear by Compression Loading

FEDERAL SPECIFICATIONS.

* Federal Test Method Standard No. 191A, Method 5903.1, Flame Resistance of Cloth; Vertical

OTHER

* Technical Bulletin 117. Requirements, Test Procedure and Apparatus for Testing the Flame Retardance of Resilient Filling Materials Used in Upholstered Furniture

1. **REQUIREMENTS**
2. WOOD PARTS

All woods used in the construction of seating under this specification shall be of a suitable hardwood species. All woods used shall be kiln dried to a moisture content of 6-10 percent before machining.

1. Exposed Wood Parts: All exposed wood parts shall be clear cutting and free of knots, splits, or checks. Unless otherwise called for in the Invitation For Bids, species shall be as specified on the purchase order, and will be selected from any species listed as available in the manufacturer's published literature for model offered.
2. Interior Wood Parts: Interior wood parts shall be of suitable hardwoods free of any defects that may affect the structural integrity of the chair.
3. Steam Bent Wood Parts: Steam bent wood parts shall be of specie suitable for bending and if exposed shall have grain and finishing characteristics similar to other exposed wood parts.
4. CASTERS

Casters if required shall be black dual-wheel non-metallic, non-abrasive, non-marking type, minimum 2" diameter, unless otherwise specified on the purchase order. Manufacturer's standard casters may be used for BIFMA tests.

1. GLIDES

The seating shall be equipped with either manufacturer’s standard polymer or metal glides.

1. GLUE

Glue shall be of good commercial quality, and gluing processes shall be according to best industry practice to assure joints of maximum strength per ASTM D905.

1. UPHOLSTERY

All fabrics used in upholstering the chairs shall comply with all applicable requirements in ASTM D 3597-02. When tested by Method 5903.1, in Federal Test Method Standard No. 191A, fabric shall not exceed two seconds after-flame time nor exceed a char length of 3".

If a 100% nylon fabric is specified on the purchase order, then unless otherwise allowed or called for, such fabric is to be minimum 14 oz. per lin. yd. (54" width) and is to meet the surface abrasion requirement for heavy-duty fabric (i.e. 40,000 double-rub cycles) in ASTM D 3597-02 when tested in accordance with ASTM D 4157-02.

All upholstery tailoring shall be performed in accordance with accepted best industry practice. Appearance shall likewise be typical of results obtained by such tailoring techniques. Patterns, where used, should be in proper alignment between the various upholstered surfaces of the seating. Seams should not be placed on a heavy-wear location of the chair (such as on the centerline of the upper surface of the arm). Any double needle seam stitching should be tape re-enforced.

1. JOININGS

All joints and joining of chairs shall be done in a secure and rigid manner in accordance with best industry practice. Dry joints, poorly fitted joints, or joints where glue appears on a finished surface are not acceptable. All exposed screws and bolts that are not decorative shall be countersunk and plugged for finished appearance except where established as part of the design and shown acceptable by customer usage. Dowels, tenons, chucking and boring with adequate glue applied shall be used where applicable, with appropriate mechanical reinforcements used where necessary and practical. Reinforcing cleats and/or corner blocks, glued and screwed, shall be used where necessary for secure fastening.

1. SEATS

Polyurethane foam, slab or molded, which may be contained in the chair seat, must meet the following requirements:

Seat Cushion Foam requirements:

|  |  |  |
| --- | --- | --- |
| **IFD** | **Density** | **Category** |
| 26 | 2.7 | Soft |
| 31 | 2.7 | Medium |
| 41 | 2.8 | Firm (Default Standard) |

The urethane foam shall be a flexible, high resiliency, polyurethane material suitable for use as furniture cushioning. It shall be manufactured from pure polyether type polyurethane without the addition of fillers. Pigments may be used to designate grades etc. The foam shall be open cell structure, 100% new material, and shall be such that odors and absorbed materials from alcohol, body fluids, and other substances shall be readily removed by washing with soap and mild detergents without damage to the urethane foam. Minimum seat thickness is 0.75 inches. Density value tolerance is +/- 0.1.

Urethane shall be tested in accordance with ASTM-3574, and shall conform to the following minimum standards (Section numbers refer to the D3574-05 issue):

* 1. Density - The procedure as outlined in Sections 9-14 shall be followed to determine the density
  2. Compression Set - Constant Deflection-Sections 37-44 shall be used to determine the compression set. The maximum set shall be 10% of the original thickness of the specimen when compressed to 90%. Report this value as Ct.
  3. Load Deflection - Indentation Force Deflection Test- Specified Deflection Test B1. Sections 16-21 shall be used to determine the Indentation Force Deflection (IFD). The specimen size shall be 15"x 15" x 4" consisting of a single piece of material. The IFD ranges at 25% deflection, shall be as follows:

Firm 30 – 38

Medium 24 – 29

Soft 18 – 23

* 1. Fatigue Test - Static Force Loss Test at Constant Deflection Test I1. Sections 77-84 shall be used. After testing, the specimen shall show no breakdown in physical structure. Permanent set (loss in thickness) shall not be more than 5% of the original thickness. The loss in IFD shall not be more than 30%. Use the same size sample as used in (c) above.

All polyurethane foam, webbing, and other padding used in the construction of the seat shall comply with all applicable requirements of State of California Technical Bulletin 117.

1. BACKS

Back Cushion Foam requirements:

|  |  |  |
| --- | --- | --- |
| **IFD** | **Density** | **Category** |
| 12 | 2.4 | Extra Soft |
| 18 | 2.4 | Comfort Soft (Default Standard) |

Upholstered backs shall be padded with adequate quantity, quality, and composition of padding materials in accordance with best industry practice to maintain proper shape and comfort in continued daily use.

All upholstery materials including polyurethane foam and other padding used in the construction of the back (and in miscellaneous components) shall comply with all applicable requirements of State of California Technical Bulletin 117. Minimum back thickness is 0.5 inches. Density value tolerance is +/- 0.1.

1. FINISH

Unless otherwise called for in the Invitation For Bids, finish shall be as specified on the purchase order, selected from any finish listed as available in the manufacturer's published literature for model offered, and shall be of top quality materials from a reputable furniture finish supplier. It shall be applied in accordance with recommendations of supplier to provide a finish that is durable and uniform in appearance.

**5.5.21 Chairs, Dining, Hospitality, General Purpose (Metal, Upholstered Type)**

This specification covers upholstered Chairs as defined herein, of traditional, transitional, and contemporary design. Upholstered wood office side chairs and upholstered wood non-ergonomic swivel-tilt desk chairs, ganged and sectional multiple seating, high abuse and other types of seating are not covered by this specification.

1. **CLASSIFICATION**

This specification establishes the minimum requirements for tubular steel frame, upholstered back and seat, arm and arm-less, leg and sled base, stacking and non-stacking chairs to be used in offices, conference rooms, dining rooms, cafeterias, banquet rooms, reception or waiting areas, and can be of traditional, transitional, and contemporary design. It is a commercial application, where furniture designed for residential use is not acceptable. It is not intended for use in a high abuse institutional environment. Chairs with casters or unpadded molded plastic chairs are not included in this specification. These chairs can be identified, differently, by various manufacturers and are often known as general-purpose chairs, hospitality chairs, dining chairs, side chairs, banquet chairs, or guest chairs.

1. The chairs shall be classified as:
2. Type I Non-Stacking
3. Type II Stacking

A picture containing furniture, seat, chair

Description automatically generated A picture containing seat, furniture, chair

Description automatically generated A picture containing furniture, seat, chair, indoor

Description automatically generated A picture containing furniture, seat, chair, red

Description automatically generated A picture containing furniture, chair, seat, red

Description automatically generated

1. **APPLICABLE SPECIFICATIONS AND STANDARDS**

Referenced specifications and standards shall be the latest issue in effect of the date of the Invitation For Bids. Copies of referenced materials may be obtained from the issuing organizations at the addresses shown. The documents below form a part of this specification. All chairs shall comply with all applicable provisions of each such document, including but not limited to particular provisions therein which may be called out elsewhere in this specification.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

* ANSI/BIFMA X5.1-2002. American National Standard for Office Furnishings --- General-Purpose Office Chairs ---Tests
* ANSI Z34.2-1987. American National Standard for Certification. Self-Certification by Producer or Supplier
* ANSI A208.1- Particleboard
* ANSI A208.2- Medium Density Fiberboard (MDF)
* ANSI/HPVA HP-1 Hardwood and Decorative Plywood

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

* ASTM D 3597-02 Standard Specifications for Woven Upholstery. Fabrics - Plain, Tufted, or Flocked
* ASTM D3574-05 Standard Test Methods for Flexible Cellular Materials--Slab, Bonded, and Molded Urethane Foams
* ASTM D 4157-02 Standard Test Method for Abrasion Resistance of Textile Fabrics (Oscillatory Cylinder Method)
* ASTM D 1037 -- Method for Evaluating Properties of Wood-Base Fiber and Particle Panel Materials

FEDERAL SPECIFICATIONS.

* TT-C-490C -- Cleaning Methods for Ferrous Surfaces and Pretreatments for Organic Coatings

OTHER

* Technical Bulletin 117. Requirements, Test Procedure and Apparatus for Testing the Flame Retardance of Resilient Filling Materials Used in Upholstered Furniture

1. **REQUIREMENTS**
2. General

Products furnished under this specification shall meet or exceed the following requirements

Chairs shall present a neat, well-finished appearance and shall be free of all imperfections and/or defects, which might affect appearance, normal life, or serviceability.

Chairs shall be furnished completely assembled and read for use.

Details not specified herein shall be in accordance with standard commercial practices for products of this type.

The colors of the chair finish and upholstery shall be selected from the manufacturer's standard colors.

1. Dimensions

Dimensions shall be:

Seat height (from floor) 18 inches (nominal)

Chair depth of seat 16 inches (nominal)

Chair width of seat 16 inches (nominal)

Limits on these dimensions are + or – 1/2 inch

1. Design

The structural design of the chairs shall be such that any sustained or impacted weight will be uniformly distributed on all supporting parts with no excessive strain on any one supporting part under normal use.

The frame (for stacking chairs only) shall be protected during stacking by the manufacturer’s standard design.

The cushions can be formed to permit a handhold between it and the upper back steel frame support (optional).

1. Materials

The materials used in the construction of the chairs shall conform to the requirements stated herein.

The steel used in the fabrication of the legs, seat frame and back frame shall be, commercial quality, cold rolled steel as defined in the applicable section of the Sheet Steel Manual. Steel tubing shall be either seamless or continuous seam welded. The thickness of steel used for individual parts shall be as specified and are minimum thicknesses permitted subject to the tolerance given in the Sheet Steel Manual. The steel tubing shall be smooth, free of rust, scale, pits, scratches, laps, crimps, and buckles.

Polyurethane foam, slab or molded, which may be contained in the chair seat, must meet the following requirements:

Back Cushion Foam Requirements:

|  |  |  |
| --- | --- | --- |
| **IFD** | **Density** | **Category** |
| 12 | 2.4 | Extra Soft |
| 18 | 2.4 | Comfort Soft (Default Standard) |

Seat Cushion Foam Requirements:

|  |  |  |
| --- | --- | --- |
| **IFD** | **Density** | **Category** |
| 26 | 2.7 | Soft |
| 31 | 2.7 | Medium |
| 41 | 2.8 | Firm (Default Standard) |

The urethane foam shall be a flexible high resiliency polyurethane material suitable for use as furniture cushioning. It shall be manufactured from pure polyether type polyurethane without the addition of fillers. Pigments may be used to designate grades etc. The foam shall be open cell structure, 100% new material, and shall be such that odors and absorbed materials from alcohol, body fluids, and other substances shall be readily removed by washing with soap and mild detergents without damage to the urethane foam. The pad shall be one piece, and securely bonded to the base. Minimum seat thickness is 0.75 inches. Minimum back thickness shall be 0.5 inches. Density values have a tolerance of +/- 0.1.

Urethane foam shall be tested in accordance with ASTM-3574, and shall conform to the following minimum standards (Section numbers refer to the D3574-05 issue):

* 1. Density - The procedure as outlined in Sections 9-14 shall be followed to determine the density.
  2. Compression Set - Constant Deflection-Sections 37-44 shall be used to determine the compression set. The maximum set shall be 10% of the original thickness of the specimen when compressed to 90%. Report this value as Ct.
  3. Load Deflection - Indentation Force Deflection Test- Specified Deflection Test B1. Sections 16-21 shall be used to determine the Indentation Force Deflection (IFD). The specimen size shall be 15"x 15" x 4" consisting of a single piece of material. The IFD ranges at 25% and 65% deflection, shall be as follows:

Firm 30 – 38

Medium 24 – 29

Soft 18 – 23

* 1. Fatigue Test - Static Force Loss Test at Constant Deflection Test I1. Sections 77-84 shall be used. After testing, the specimen shall show no breakdown in physical structure. Permanent set (loss in thickness) shall not be more than 5% of the original thickness. The loss in IFD shall not be more than 30%. Use the same size sample as used in (c) above.

Upholstered backs shall be padded with adequate quantity, quality, and composition of padding materials in accordance with best industry practice to maintain proper shape and comfort in continued daily use.

All upholstery materials including polyurethane foam and other padding used in the construction of the back (and in miscellaneous components) shall comply with all applicable requirements of State of California Technical Bulletin 117.

All fabrics used in upholstering the chairs shall comply with all applicable requirements in ASTM D 3597-02. When tested by Method 5903.1, in Federal Test Method Standard No. 191A, fabric shall not exceed two seconds after-flame time nor exceed a char length of 3".

If a 100% nylon fabric is specified on the purchase order, then unless otherwise allowed or called for, such fabric is to be minimum 14 oz. per lin. yd. (54" width) and is to meet the surface abrasion requirement for heavy-duty fabric (i.e. 40,000 double-rub cycles) in ASTM D 3597-02 when tested in accordance with ASTM D 4157-92.

All upholstery tailoring shall be performed in accordance with accepted best industry practice. Appearance shall likewise be typical of results obtained by such tailoring techniques. Seams should not be placed on a heavy-wear location of the chair

Hardware: Bolts, nuts, screws, rivets and other fastening devices used in chair construction shall be made of corrosion resistant material.

Plywood when used for seats and backs shall be maximum moisture content of 10% and meet the requirements of ANSI/HPVA HP-1 2004. Plywood shall be a minimum of seven-sixteenths inch (7/16”) panel, three-ply.

Particleboard: Particleboard used for seats and backs shall be high density, a minimum of five-eights inch (5/8”) thick that’s warp, abrasion and moisture resistant. Maximum moisture content shall be 10%. Minimum density shall be fourth-five pounds (45 lbs) per cubic foot.

1. Finish

All painted surfaces shall be thoroughly cleaned and free of dirt, oil, grease, moisture, or other foreign material prior to painting. The cleaning and priming of the surfaces shall conform to one of the methods of Federal Specification TT-C-490C, at the manufacturer's option.

Paint Finish: After cleaning, the frame shall be dipped or sprayed with a suitable primer coat that is compatible with the top or finish coat. The finish coat shall consist of a baked enamel coating applied and baked in accordance with the enamel manufacturer's recommendations (or the manufacturer's standard epoxy based coating of comparable quality). The enamel shall be a non-chipping type. There shall be no indication of rust or decay under the coating. An equivalent thermo-set epoxy powder coating, electrostatically applied and baked on, shall also be acceptable.

Chrome Finish: An electroplated chrome finish is also acceptable. The frame shall be subject to the manufacturer's standard electrical and chemical cleaning process. Chrome shall be plated over a nickel base. The chrome shall be corrosion and chip resistant.

1. Fabrication

Welds: All brazing and welding shall assure rigid joints in proper alignment. Welds shall be sound, without porosity, and shall provide rigid, one-piece units, free of burrs and sharp edges. Bends in the welded frame shall be machine formed.

Upholstery: The padded seat and backrest assembly shall be securely attached with tabs or fasteners and shall not loosen under normal use. The seat and back-upholstered assemblies shall match in construction, design, and color.

Legs, Seat Frame and Back Frame: The frame and legs shall be made from a minimum eighteen (18) gauge square tubular steel, minimum three quarters inch (3/4”). Frames shall be seam welded to produce strong unit constructions.

Chair Seats and Backs: Chairs shall be furnished with upholstered back and seat assemblies consisting of support panel, padding, and upholstery, secured to the frame with metal fasteners.

Seat: The seat shall be upholstered

Back: The upholstered back shall have a minimum of four (4) fasteners or tabs attaching it to the frame, and enclosed within the tubular back support. The upholstery material shall be stapled at the edge.

Stacking Bumpers required: Manufacturer’s standard design to prevent damage when stacked.

Glides required: Glides shall be manufacturer’s standard polymer or metal construction.

Ganging: When so specified in the Invitation for Bids, fastening devices shall be furnished which will hold the chairs together in groups in a rigid and secure manner. Ganging part to be supplied by the furniture manufacturer.

**5.5.22 Tables, Dining**

This specification establishes requirements for dining tables, for use by all state agencies, departments, and institutions, all public schools except those exempted by statute, and by certain non-state agencies as listed in the IFB. The dining tables consist of a tabletop of various construction, shapes and sizes combined with various types of base structures. A Entity would typically mix and match the parts to achieve the style desired.

A picture containing text, furniture, table

Description automatically generatedA picture containing text, furniture, table, seat

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1. **APPLICABLE SPECIFICATIONS AND STANDARDS**

Reference to specifications, standards, test methods, and other documents shall be to the issues in effect on the date of the IFB. Copies of the referenced documents may be obtained from the issuing organizations. The following documents and / or publications form a part of this specification to the extent specified herein:

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

* ANSI A208.1- Particleboard
* ANSI A208.2- Medium Density Fiberboard (MDF)
* ANSI/HPVA HP-1 Hardwood and Decorative Plywood

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

* ASTM D 1037 - Method for Evaluating properties of wood base Fiber and Particle panel materials.

FEDERAL

* L-P 5089 - Plastic sheet, laminated, decorative and non-decorative.
* LLL-B-810 - Building board (Hardboard) Hard pressed vegetable fiber.
* TT-C-490 - Cleaning methods for ferrous surfaces and pre treatments for organic coatings.

IRON AND STEEL SOCIETY (ISS).

* Sheet Steel manual

NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION (NEMA)

* LD-3 - High-pressure Laminate

1. **GENERAL REQUIREMENTS**
   1. Products furnished per this document shall meet or exceed the following requirements:
2. All tables shall be new, unused, and a currently standard product of an established manufacturer.
3. All tables shall present a neat, well-finished appearance inside and outside and shall be free from all imperfections and/or defects, which might affect appearance, normal life, safety or serviceability.
4. All metal parts shall be commercial quality and inherently corrosion resistant, or suitably treated to resist corrosion.
5. Plastic surfaces shall be free from ripples and thin spots, and have a bright colorfast appearance.
6. A style may be approved and identified by a Series Number when the basic table design and construction is the same, with the variation being the size of the top. Vendor must specify sizes of tabletops currently available within the Series designation. If manufacturers Series Number includes furniture, other than tables as described herein, those "other" items will not be included in this listing. Approval of the tables, within a series, does not indicate that the other furniture is also approved or listed. If a Series number is not available then each item part number shall be listed.
7. Listing of a product is not intended to and does not connote endorsement of the product by the state.
8. **PRODUCT REQUIREMENTS**
9. Table Top (Applies to all tables)

The tabletops shall be provided in the following shapes and sizes. Dimensions are in inches. The dimensions in the “Round” column represent the diameter of the top.

|  |  |  |
| --- | --- | --- |
| **Round** | **Square** | **Rectangle** |
| 24 | 24x24 | 24x30 |
| 30 | 30x30 | 24x36 |
| 36 | 36x36 | 24x48 |
| 42 | 42x42 | 24x60 |
| 48 | 48x48 | 24x72 |
| 54 |  | 24x96 |
| 60 |  | 30x36 |
|  |  | 30x48 |
|  |  | 30x60 |
|  |  | 30x72 |
|  |  | 30x96 |
|  |  | 36x48 |
|  |  | 36x60 |
|  |  | 36x72 |
|  |  | 36x96 |

The materials & construction of the tabletop are defined as follows:

Tabletops shall be solid wood, particleboard or plywood. The thickness shall be manufacturer’s standard but not less than one inch. Particleboard (45 lb. per cu. ft.) or plywood core tabletops shall have laminated construction consisting of HPL decorative plastic surface, complying with NEMA GP28 (0.028 thick) or wood veneer 0.025” minimum thickness. Low-pressure laminate (LPL) is not acceptable. The bottom shall have a backing sheet. All woods used shall be kiln dried to a moisture content of 6-10 percent.

The edges shall be shaped and rounded and the corners shall be rounded. The edges shall be self-edged, wood banded, PVC or vinyl edged. All edging shall be glued or fused to the core material. Self-locking barbed tongue flexible, vinyl "T" or "Bull nose" molding is NOT acceptable. The solid bond between the core / laminate and the edging makes them particularly sanitary and appropriate for food service applications.

The top surface shall resist stains, scratches, burns, and be non-porous.

Top deflection shall be kept to a minimum. Rectangular tables 48 inches or greater in length shall be equipped with a metal stretcher for longitudinal support.

The height of the table is defined as the distance from the floor to the top surface of the table measured perpendicular to the floor. The table height shall be not less than 29 inches and not greater than 32 inches.

1. Table Base Structure

Base structures shall be constructed from either wood or steel. Steel bases shall be manufactured with one-piece welded construction. The table top to leg support structure attachment method shall be so designed to provide a strong solid union that will not loosen under normal use.

The hardware (screws) for attaching the leg or support mounting plates to a top constructed purely from particleboard must be of the type specially designed for use with particleboard. Wood screws used as the primary means of attachment are not acceptable. They are acceptable when the attachment interface is re-enforced with wood cleats or plywood blocking that will provide a lower screw pull out force.

Another acceptable method is threaded metal inserts imbedded into the underside of the tabletop.

**Leg base with Apron**: The Leg base with apron table is defined as a table supported by legs constructed from tubular steel with a peripheral sheet metal apron attached to the legs and the under side of the table top. The legs shall be fixed, non-adjustable height. The leg shall be a straight or tapered type.

The size, sectional modulus and gauge thickness of the leg/apron structure shall be designed to provide a stable, rigid, and non-racking table under normal use.

**Single Pedestal:** The Single/Center Pedestal table is defined as a table supported by a metal center column or pedestal attached to a base consisting of 4 or more equal-spaced horizontal "feet" or a disc sized to prevent tipping. The Pedestal shall be fixed, non-adjustable height.

The size, sectional modulus and gauge thickness of the metal used in the manufacture of the pedestal, base, feet and attaching interface structure shall be designed to provide a stable, rigid, and non-racking table under normal use.

**Double Pedestal:** The Double Pedestal table is defined as a table supported by two pedestals These pedestals must be coupled together with a lateral beam member on tables over 48 inches. Each pedestal has its own base, which has horizontal "feet". These "feet" must provide stability, and prevent the table from tipping over.

The size, sectional modulus and gauge thickness of the metal used in the manufacture of the pedestals, base, feet and attaching interface structure shall be designed to provide a stable, rigid, and non-racking table under normal use.

1. Glides (Applies to all Tables)

Glides shall be steel-cushioned, or nylon, or all steel, and or be of the "boot" (ferrule) design. There shall be a minimum of one retaining clip or heavy-duty pressure ring holding the booted glide within the leg tubing. Glides shall have a self-leveling swivel design. The outside diameter of the glide pad, that contacts the floor, must be a ¾-inch diameter minimum. Glides shall not be easily removed without the use of tools.

1. Finish (Metal parts)

Colors and finishes shall be the manufacturer's standard. All metal finishes shall be compatible with the tabletop colors.

1. Painted: All painted surfaces shall be thoroughly cleaned and free of dirt, oil, grease, moisture, or other foreign matter prior to painting.

After cleaning, the frame shall be coated with a paint- bond coating and a rust inhibitor compatible with the top or finish coat. The finish coat shall consist of high temperature enamel applied and baked in accordance with the paint manufacturer's recommendations (or the manufacturer's standard acrylic/epoxy based enamel coating of comparable quality). The enamel shall be the non-chipping type. There shall be no indication of rust, or decay, under the coating. An equivalent thermo-set epoxy resin dry powder coating, electro-statically applied, shall also be acceptable.

1. Chrome Plated: All metal which is to be chrome plated shall be treated by the manufacturer's standard electrical and chemical cleaning process. Chrome shall be plated over a Nickel base. The chrome shall be corrosion and chip resistant.

**5.5.23 Occasional Tables**

Tables offered meet or exceed the construction and test requirements of the BUSINESS AND INSTITUTIONAL FURNITURE MANUFACTURERS ASSOCIATION (BIFMA) X5.5, American National Standard for Office Furnishings- Desk/Table Products –Tests.

**5.5.24 FILE Cabinet, Lateral, Metal**

This specification covers requirements for steel lateral filing cabinets that may be used for filing letter and other size materials either laterally or in a front to back arrangement. These requirements are based on general industry standards and are intended to provide high quality steel lateral file cabinets that will withstand constant use for long periods.

1. **CLASSIFICATION**

Lateral filing cabinets shall be categorized by CLASS, TYPE, SIZE, and STYLE as Follows:

1. **Class I Extended Lines**

**1. TYPES**

Type I Two Drawer High (Nominal 12" Height Opening)

Type II Three Drawer High (Nominal 12" Height Opening)

Type III Four Drawer High (Nominal 12" Height Opening)

Type IV Five Drawer High (Nominal 12" Height Opening)

**2. SIZES**

30 Inches Wide 36 Inches Wide 42 Inches Wide

**3. STYLES**

All Drawers

All Shelves

All Drawers and One Top Shelf

All Shelves and One Bottom Drawer

1. **Class II Limited Lines**

TYPES, SIZES, AND STYLES, SAME AS CLASS I

1. **APPLICABLE SPECIFICATIONS AND STANDARDS**

Referenced specifications and standards shall be the latest issue in effect on the date of the Invitation for Bids. Copies of referenced materials may be obtained from the issuing organizations at the addresses shown. The following documents form a part of this specification to the extent specified herein.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

* ANSI/BIFMA X5.9 File/Storage Units-Tests.

AMERICAN SOCIETY FOR TESTING MATERIALS (ASTM)

* ASTM D-3359 Method for Measuring Adhesion by Tape Test
* ASTM D-3363 Test Method for Film Hardness by Pencil Test

FEDERAL

* TT-C-490E - Cleaning Methods for Ferrous Surfaces and Pre-treatment for Organic Coatings.

1. **REQUIREMENTS**
2. **SPECIFIC REQUIREMENTS: Class I Extended Lines**
3. Lateral File Line must offer configurations as described under I. CLASSIFICATION, A. Class I.
4. All configurations must be available with or without locks.
5. Optional drawer heights of 3", 6", 9", 15" must be available.
6. Must offer Accessories such as, but not limited to, Storage Cabinets, Wardrobes, shelves, etc.
7. Must offer minimum of 16 colors.
8. **SPECIFIC REQUIREMENTS: Class II Limited Lines**
   1. Lateral File Line must offer configurations as described under I. CLASSIFICATION, B. Class II.
   2. All configurations must be available with locks.
   3. Must offer minimum of 7 colors.
9. **GENERAL REQUIREMENTS: Class I Class II.**
10. All lateral files furnished under this specification shall meet or exceed the requirements of ANSI/BIFMA X5.9, ASTM D-3359, ASTM D-3363 and Federal Spec. TT-C-490E.
11. Lateral files shall be new and in first class condition. All products offered shall be current standard products of an established manufacturer. The lateral file shall be complete with all accessories and equipment normally furnished by the manufacturer and customarily used in lateral file operations, whether such accessories and equipment are stipulated herein or not. All units shall be free from defects, imperfections, or hazards that might affect appearance, normal life, and serviceability or Entity safety.
12. There shall be no exposed raw metal edges that might cause personal injury or damage to floors.
13. Drawer and Receding door locks shall control the locking of all cabinet compartments. When the locking mechanism is activated, it shall hold the drawers and doors positively locked and secured against any forward tilting of the cabinet or hand pressure applied to the drawer or door.
14. All nuts, bolts, screws and fastening devices shall be corrosion resistant. The use of paint or lacquer as the sole corrosion inhibitor is prohibited. Counterweights are required for all types.
15. A caution label shall be affixed to the interior surface of the top compartment, prominently visible to the Entity when the compartment is opened, advising the Entity to adjust the glides so that the cabinet is level from side to side and where applicable the front is slightly higher than the back. The label shall advise the Entity that bottom compartments should be loaded first. Reference should also be made, on the label, to an instruction sheet for conversion from letter size to legal size filing and vice versa.
16. Details not specifically covered in this specification shall be in accordance with the best commercial practice for products of this type.
17. **FABRICATION**
    1. All welds shall be sound and without porosity. Exterior welds shall be smooth and interior welds shall have no sharp edges or rough surfaces. Welds, rivets, and braces shall assure rigidity, strength and proper alignment.
    2. File cabinets shall have one piece or unitized construction. If modular construction is used, each module shall be unitized. File cabinets shall not tilt or deviate from a true vertical state.
18. **MATERIALS**
19. CABINET - The cabinet case front, sides, back, top, bottom and interior supporting members shall be manufactured of not less than 22 gauge steel, be rigidly formed, braced, reinforced and welded to withstand heavy usage without distortion, warping or twisting. The cabinet's case shall be designed to hold both fixed front drawers and roll out shelves with receding doors. The cabinet bottom shall have easily adjustable glides at each corner. Interiors shall be completely modular and interchangeable so that cabinets may be fitted with new accessories as required.
20. DRAWERS - Drawers shall be made of not less than 22 gauge steel with front attached and shall have the following features: (Note: If drawer fronts have inner heads, not less than 24 gauge steel may be used to fabricate the inner head)
    1. All drawers shall have provisions for filing letter and legal documents both in a lateral and front-to-back manner. All adjustable components shall be designed for easy configuration changes.
    2. Each drawer shall be equipped with hanging folder frames to support letter or legal documents filed in a lateral manner and/or a front-to-back manner. The method of filing will be specified in the Invitation for Bids. Hanging folder frames to be provided for each drawer.
    3. Drawer pulls shall be integral, die cast zinc or other suitable material.
    4. Drawers shall be equipped with a safety interlock system that allows only one drawer to be opened at a time. When one drawer is opened up to two inches beyond the fully closed position, the interlock shall prevent any other drawer from being opened more than two inches.
21. SHELVES - Roll out filing shelves with receding or drop doors shall be manufactured from not less than 22-gauge steel. The receding door shall operate on rollers or other suitable mechanism and the mechanism shall be durable and operate in a trouble-free manner.
    1. All shelves shall be equipped with a minimum of three adjustable dividers unless otherwise specified in the Invitation for Bids.
    2. Shelves shall be equipped with a safety interlock system that allows only one shelf to be opened at a time. When one shelf is opened up to two inches beyond the fully closed position, the interlock shall prevent any other shelf from being opened more than two inches.
22. DRAWER AND SHELF SUSPENSIONS - Drawers and shelves will rollout and shall operate on full ball-bearing progressive suspensions. Members of the suspension shall be cold drawn steel, zinc plated or other suitable material to prevent rust, and of adequate strength to support loaded shelves or drawers. Suspension shall accommodate uneven drawer loading and uneven push or pull forces when opening or closing. Drawers and shelves shall operate smoothly without noticeable sticking or uneven motion.
23. GLIDES - All units shall be equipped with 4 adjustable glides approximately 1" in diameter, shipped in a recessed position and adjustable from inside the cabinet. Hex shaped glides of similar size are acceptable.
24. HARDWARE - All face hardware shall be corrosion resistant steel, chromium plated, aluminum or die cast zinc alloy, brass, bronze or other acceptable durable material. Face hardware shall be polished and all hardware free of sharp edges or burrs.
25. FINISH - All interior and exterior surfaces shall be properly cleaned and prepared for application of finish coating. The cleaning and priming of surfaces shall conform to one of the methods of Federal Specification TT-C-490E. All surfaces shall be coated with baked enamel coating not less than 1 mil. (- 0.2 mil) thickness. The finish shall be in accordance with the manufacturer's commercial practice and shall be smooth and uniform, without runs, wrinkles or embedded foreign particles.
26. CABINET GANGING AND/OR ANCHORING - Cabinets shall be provided with knockouts or drill templates to facilitate ganging of cabinets and/or anchoring to the wall or floor. If knockouts are not provided, ganging and/or anchoring templates and instructions are to be furnished with each lateral file.
27. COUNTERWEIGHTS – Any counterweight must be secured against movement at the factory.

**5.5.25 Vertical, FILE cabinet, Metal**

This specification covers vertical steel file cabinets designed to hold general letter and legal size filing material. It does not cover all commercially available file cabinets, but only those generally used by state offices, schools, agencies, institutions, etc. These requirements are based on general industry standards and are intended to provide high quality steel vertical file cabinets that will withstand constant use for long periods.

1. **Classification**

Vertical file cabinets shall be developed by type, size, class and style as follows:

1. **Types**

Type I: 2 drawers high, 1 drawer wide

Type II: 4 drawers high, 1 drawer wide

Type III: 5 drawers high, 1 drawer wide

1. **Sizes**

Size 1: Legal Size

Size 2: Letter Size

1. **Classes**

Classes are based on daily usage of drawers fully loaded (defined as weights of 2.1 pounds per linear inch for letter size drawers, or 2.6 pounds per linear inch for legal size drawers).

Class A: Heavy Duty- Heavy Use: recommended where drawers are used 25 or more times per day.

Class B: Medium Duty - Medium Use: recommended where drawers are used 20 or more times per day.

Class C: Light Duty- Light Use: recommended where drawers are used less than 20 times per day.

1. **Style**

Traditional: Characterized by inset drawer faces, bolted-on pull handles, thumb latches and permanently attached and centered label holders.

Contemporary: Characterized by external or inset drawer faces, integral horizontal hand pulls and movable snap-in plastic label holders.

1. **Applicable Standards**

The following documents of issue in effect on the date of the Invitation for Bid (IFB) shall form a part of this specification to the extent described in requirements:

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

* ANSIIBIFMA X5.3- Vertical Files- Tests

AMERICAN SOCIETY FOR TESTING MATERIALS (ASTM)

* ASTM D3359- Standard Test Methods for Measuring Adhesion by Tape Test ASTM D3363 - Standard Test Method for Film Hardness by Pencil Test

FEDERAL

* A-A-3186A- Commercial Item Description- File Cabinets, Vertical, Steel General Services Administration, Federal Supply Service, Specification Section

1. **Requirements**

Vertical file cabinets shall be new, be in first-class condition and be currently standard products of an established manufacturer (except for deviations as may be required by this specification). All cabinets shall be free from defects, imperfections, or hazards that might affect overall appearance, function, serviceability or Entity safety. All burrs and sharp edges (including hardware) that may result in personal injury shall be eliminated. Details not specifically covered in this specification shall be in accordance with the best commercial practice for products of this type.

1. **Feature Requirements**
2. **Adjustable Glides (Levelers, Adjustable Supports or Height Adjusters):** Glides are support devices for leveling and/or stabilizing a vertical file. Glides are not required.

Vendors shall indicate if glides are available, either standard or as an option.

1. **Case:** The case is the cabinet shell and all structural parts, including the sides, back , top plate, bottom plate, front framing, vertical uprights and any other fixed member, excluding drawers.

All welds shall be sound and without porosity. Exterior welds shall be smooth and interior welds shall have no sharp edges or rough surfaces. Welds and braces shall assure rigidity, strength and proper alignment.

The cabinet case bottom shall be closed, except drainage, fabrication and lock bar openings shall be permitted. The sides, top, and back of the cabinet case shall have smooth even surfaces and shall be without holes or indentations except for scored knockouts. Knock-out outlines will be permitted in locking area in cabinet's top.

The file cabinet shall not tilt or deviate from a true vertical state.

Cabinets case depth for Class A and Class B file cabinets shall have a minimum outer depth of 28". Class C cabinet cases shall have a minimum outer depth of26.5".

1. **Compressor (Follower Block):** A compressor, an adjustable device used to restrict the movement of the filed material, shall be provided within each drawer. Compressors shall be adjustable throughout the entire depth of the drawer without requiring a tool and shall solidly engage in place.
2. **Drawer (Extendible Element):** Drawer s are the movable load-bearing storage components. Drawers shall be removable but designed to prevent unintentional removal. Drawer sides, back and front shall be welded or otherwise mechanically joined.

The term "drawer" will also be used to refer to the open (bottomless) frames designed only for hanging folders. Vendors shall identify when their vertical file cabinets utilize the bottomless design.

Drawer sides shall be compatible with the use of hanging folders as is, or the Vendor shall identify when added hanging folder frames or hang rails would be required.

The clear dimensions of a drawer are defined by the sides of the largest rectilinear box that fits into the space. The box must clear all stationary elements as the drawer is taken through its full range of travel. Minimum clear dimensions shall be as follows:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Drawer Clear (Inner) Dimensions** | | | | |
| **Cabinet Class** | **Depth (min)** | **Width (min)** | | **Height (min)** |
| **Letter** | **Legal** |
| **A & B** | 26" | 12" | 15-1/16" | 10" |
| **C** | 24-1/4" | 12" | 15-1/16" | 10" |

1. **Finish:** The finish shall be in accordance with the manufacturer's best commercial practices. The finish on all exterior surfaces shall level out to produce a smooth uniform surface without runs, wrinkles, grit, separation of color, or areas of thin film or no film. There shall be no exposed raw metal edges.

All case and drawer surfaces shall be painted, including interior and bottom, to prevent against rust. All hardware shall be corrosion resistant, such as anodized, plated, stainless or painted.

All painted surfaces shall be pretreated. Baked enamel shall be the preferred paint type for all cabinet classes, but acrylic shall be acceptable for Class C only. ·Finish shall pass the prescribed test procedures described under item VI.

1. **Interlock:** An interlock is a device that limits the extension of drawers to one at a time, to maintain the stability of the cabinet. An interlock is not required, but is a desirable option.

Vendors shall indicate if interlocks are available, either standard or as an option.

1. **Latching Mechanism:** A latching mechanism is a keyless device designed to keep drawers in their closed position until the Entity actively releases the device without a tool. Interlock and anti-rebound mechanisms are not considered latching mechanisms.

Each drawer shall have a latching mechanism and latch release. The latch release shall operate without jamming or binding and shall be operable with the same hand that simultaneously grasps the pull.

1. **Label Holder:** For traditional style cabinets, a permanently-attached label holder shall be centered on each drawer front, above the drawer pull.

For contemporary style cabinets, label holders shall be either standard or an available option, and may be a removable type.

1. **Lock:** Locks secure drawers of the vertical file against undesired access or opening.

When present, a single key lock shall secure all cabinet drawers, and the lock shall not be removable without tools. A lock shall be provided for Class A and Class B cabinets, and is a desirable option for Class C cabinets.

All key locks shall be within 0.3" of flush with the cabinet front. The lock shall be a disk or pin tumbler type, having not less than four disk or pin tumblers, and shall operate by a grooved key. The keys shall operate easily and smoothly in performing their intended function. Rotational key locks shall be the standard, and shall only rotate during activation and deactivation. An optional style lock, when available, shall be of the push type with key. This optional style unlocks with a key rotation, protrudes out when unlocked, and automatically locks when pushed in without requiring the use of a key.

One key fits all locks ("key-alike"), on a multiple quantity order, shall be an available option. Two identical keys shall be supplied with each lock.

Vendors shall identify whether a key lock is standard, optional or not available for Cabinet C cabinets. Vendors shall also identify when push key locks are available.

1. **Out Stops (Drawer Stops):** An out stop is a device that prevents a drawer from falling out of the cabinet when fully extended. Out stops shall be provided for all drawers.
2. **Pull:** A feature used to facilitate the opening and closing of a drawer. For traditional style cabinets, the pull shall project out from the drawer front and be replaceable. For contemporary style cabinets, pulls may be recessed features.
3. **Suspension (Slides, Supports):** The suspension facilitates the movement of the drawer in and out of the cabinet case. Suspensions shall operate quietly and smoothly, in accordance with best commercial practice. Movement shall be an even telescoping action.

The preferred suspension type for all classes shall be steel ball bearing. Plastic roller suspension shall be acceptable only for Class C·

Distance from rear of drawer to front of case with suspension fully extended shall not be greater than 2".

1. **Performance Requirements**

All vertical file cabinets furnished under this specification shall comply with all the requirements of either 1) or 2):

1. Vertical file cabinets shall meet or exceed the performance requirements of ANSVBIFMA X5.3, or
2. GSA Furniture Schedule
3. The vendor is a federally-qualified vendor within the GSA Furniture Schedule, and
4. The products are on the GSA Furniture Schedule, and
5. The products are of the same specifications, and of the same or better pricing, as the vendor's products included on the GSA Furniture Schedule.
6. **Sustainability Requirements**
7. **Less Toxic**
8. **Low Emissions:** Vertical file cabinets shall be 3'd·party certified for low Volatile Organic Compound (VOC) emissions. Acceptable certifications are listed in the table below:

|  |  |  |
| --- | --- | --- |
| **Low VOC Emissions** | | |
|  | **Organization** | **Certification** |
| **Preferred** | BIFMA [e3] | Level 1, 2 or 3, must have 7.6.2 credit |
| Cradle to Cradle | Gold or Platinum |
| UL [2818 GREENGUARD] | GREENGUARD Gold |
| Intertek [ETL Environmental VOC] | VOC+ ETL Environmental or Formaldehyde Free |
| Materials Analytical Services (MAS) | Certified Green |
| Scientific Certification Systems (SCS) | Indoor Advantage Gold - Furniture |
| Institute for Market Transformation to Sustainability (MTS) | SMaRT (Silver, Gold, or Platinum), must have PHE 3.2 or PHE 3.3 points |
| **Acceptable** | BIFMA [e3] | Level 1, 2 or 3, must have 7.6.1 credit |
| UL [2818 GREENGUARD] | GREENGUARD |
| Intertek [ETL Environmental VOC] | VOC ETL Environmental |
| Scientific Certification Systems (SCS) | Indoor Advantage - Furniture |

1. **Low Lead:** Vertical file cabinets shall comply with the 16 CFR 1303 lead content restrictions for surface coating materials.
2. **Recycled content:** Minimum postconsumer recycled and total recovered steel content levels for vertical file cabinets shall comply with the EPA Comprehensive Procurement Guidelines for Non-Paper Office Products, Office Furniture, Furniture Structure, Steel.
3. **More Durable:** In addition to the minimum performance requirements in III.B. above, cabinets options are sought for stricter duty classes (feature requirements in III.A may differ between Classes for case depth, finish, locks and suspension):
4. **Class A (Heavy Duty/Heavy Use):** Cabinets listed as Class A shall meet the additional performance requirements within federal CID A-A-3186A, section 2.16.
5. **Class B (Medium Duty/Medium Use):** Cabinets listed as Class B shall meet the additional performance requirements within federal CID A-A-3186A, section 2.15.
6. **Class C (Light Duty/Light Use):** Cabinets listed as Class C do not have to meet any additional performance requirements to those in III.B.
7. **Workmanship**

The file cabinet shall exhibit a high quality of assembly and craftsmanship, resulting in a finished product that is satisfactory in function, serviceability and overall appearance.

**5.5.26 Storage, Metal**

This specification covers materials and construction of metal safety storage cabinets used for storage of flammable and combustible liquids, liquids that are in safety cans and other closed metal containers. It also covers metal storage cabinets not intended to store flammable and combustible liquids, such as wardrobes and general storage cabinets, combination units, and counter height cabinets. There is no intention to cover all the variations and sizes of cabinets commercially available, but only those most frequently used by state agencies and public schools. Each cabinet shall be the type and size specified and shall be a new and unused standard product of the manufacturer.

1. **CLASSIFICATION**

Class 1: Safety storage (flammable liquids), self-closing door(s), 30-gallon rated capacity

Class 2: Safety storage (flammable liquids), self-closing door(s), 45-gallon rated capacity

Class 3: Safety storage (flammable liquids), self-closing door(s), 60-gallon rated capacity

Class 4: Safety storage (flammable liquids), non-self-closing door(s), 30-gallon rated capacity

Class 5: Safety storage (flammable liquids), non-self-closing door(s), 45-gallon rated capacity

Class 6: Safety storage (flammable liquids), non-self-closing door(s), 60-gallon rated capacity

Class 7: Storage (not for flammable liquids), full height, nominal size 36” W x 18” D x 78” H

Class 8: Storage (not for flammable liquids), full height, nominal size 36” W x 24” D x 78” H

Class 9: Storage (not for flammable liquids), counter height, nominal size 36” W x 18” D x 42” H

Class 10: Storage (not for flammable liquids), counter height, nominal size 36” W x 24” D x 42” H

Class 11: Combination storage and wardrobe, nominal size 36” W x 18” D x 78” H

Class 12: Combination storage and wardrobe, nominal size 36” W x 24” D x 78” H

Class 13: Wardrobe, nominal size 36” W x 18” D x 78” H

Class 14: Wardrobe, nominal size 36” W x 24” D x 78” H

1. **APPLICABLE STANDARDS**

The following documents of the issue in effect on the date of the Invitation for Bids shall form a part of this specification:

NFPA Code 30 Flammable and Combustible Liquids Code, Section 4-3, Design, Construction, and Capacity of Storage Cabinets

NFPA Code 251 Standard Methods of Fire Tests of Building Construction and Materials

North Carolina Occupational Safety and Health Standards for General Industry, 29CFR 1910.106(d)(3), Design, construction, and capacity of storage cabinets

Factory Mutual Approval Guide, Volume 1, Fire

Underwriters Laboratory 1275 Standard for Flammable Liquid Storage Cabinets

ANSI/BIFMA X5.6-1993, American National Standard for office furnishings --- panel systems --- tests, section 6, Static Load Test for Storage Shelves

Uniform Fire Code Article 79, Flammable and Combustible Liquids – 7902.5.9.3.2.

Underwriters Laboratory Gas and Oil Equipment Directory

**III. REQUIREMENTS**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **TABLE 1** | | | | | | | | | | | | | | |
| **CLASS** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** |
| NO. SHELVES | 1 | 2 | 2 | 1 | 2 | 2 | 4 | 4 | 2 | 2 | 4 | 4 | 1 | 1 |
| SHELF SIZE (IN) | 39x14 | 39x14 | 27x27 | 39x14 | 39x14 | 27x27 | 36x18 | 36x22 | 36x18 | 36x24 | 36x18 | 36x24 | 36x18 | 36x24 |
| SHELF SIZE (IN) |  |  |  |  |  |  |  |  |  |  | 18x18 | 18x24 |  |  |
| DOOR | 18 | 18 | 18 | 18 | 18 | 18 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| BOTTOM | 18 | 18 | 18 | 18 | 18 | 18 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| TOP | 18 | 18 | 18 | 18 | 18 | 18 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| SHELF SPPT | 18 | 18 | 18 | 18 | 18 | 18 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| SIDE | 18 | 18 | 18 | 18 | 18 | 18 | 22\* | 22\* | 22\* | 22\* | 24 | 24 | 24 | 24 |
| BACK | 18 | 18 | 18 | 18 | 18 | 18 | 22\* | 22\* | 22\* | 22\* | 24 | 24 | 24 | 24 |
| SHELF | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 24 | 24 | 24 | 24 | 24 | 24 |
| DOOR REINF | 18 | 18 | 18 | 18 | 18 | 18 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| HEIGHT (IN) | 44 | 65 | 65 | 44 | 65 | 65 | 78 | 78 | 42 | 42 | 78 | 78 | 78 | 78 |
| WIDTH (IN) | 43 | 43 | 31 | 43 | 43 | 31 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| DEPTH (IN) | 18 | 18 | 31 | 18 | 18 | 31 | 18 | 24 | 18 | 24 | 18 | 24 | 18 | 24 |

Notes: (a) “Class” refers to classes under Section I above.

(b) Second entry for shelf size applies to the lower shelves on combination storage and wardrobe units.

(c) All values are minimum dimensions or metal thicknesses, except as provided in (d) following.

(d) Shelf planform dimensions are nominal. Necessary reductions from the required nominal size to provide for clearance for the shelf to fit inside the host cabinet are acceptable.

(e) \* For thickness of sheet metal on sides and backs of cabinets in classes 7, 8, 9, and 10, 24-gauge is acceptable for designs in which the shelf is supported by means of shelf support strips welded to the sides or back of the cabinet.

**A. CONSTRUCTION**

1. Safety storage cabinets (for flammable liquids)

Each safety storage cabinet shall be sturdily constructed so as to amply support the manufacturer's rated liquid capacity without permanent deformation, misalignment, or opening of seams and joints. Door(s) must remain in adjustment and their normal operation unaffected by this loading. Shelf supports are to provide adjustment of shelves of 3" or less between centers. Two shelf support strips 1-1/2” wide are to be welded to each side of the cabinet and one such strip is to be welded to the back. Strips must be of a thickness adequate to provide strength sufficient to accomodate the maximum rated load of the shelves. Unless otherwise specified, either two independent doors or a single sliding (folding) two-panel door system may be offered.

Cabinets shall be designed and constructed in accordance with the current requirements of the NFPA Code 30 and OSHA, which essentially is repeated below, in paragraphs (a) and (b). In case of conflict, (a) and (b) take precedence.

(a) Sheet metal parts of the cabinet shall be of the minimum thicknesses specified in Table 1. The door and the bottom, top and sides of the cabinet shall be double walled with 1-1/2 inch air space. Joints shall be riveted, welded or made tight by some equally effective means. The door shall be provided with a three-point latch arrangement and the door sill shall be raised at least 2 inches above the bottom of the cabinet to retain spilled liquid within the cabinet.

(b) Cabinet shall be designed and constructed to limit the internal temperature to not more than 325 degrees Fahrenheit when subjected to a 10-minute fire test using the standard time temperature curve as set forth in Standard Methods of Fire Tests of Building Construction and Materials NFPA 251-1990.

Cabinet shall be equipped with at least two external exhaust vents which can be opened or plugged, removable metal shelves, and adjustable leveling devices to keep the cabinet level. Cabinet shall also include a means for properly attaching a separate grounding wire to the outside of its base.

Cabinets with self-closing door(s) shall include a fusible link(s) that melts when subjected to high temperatures (165 degrees Fahrenheit) and allows the door(s) to automatically close. Cabinets with self-closing door(s) must comply with the Uniform Fire Code, Article 79, Flammable and Combustible Liquids – 7902.5.9.3.2.

Continuous piano-style hinges running the full length of the door are to be provided for each door.

Each offered model of safety storage cabinet shall be listed in Factory Mutual Approval Guide, Volume 1, Fire, or listed in Underwriters Laboratories Gas and Oil Equipment Directory. Each unit carrying such approval or listing shall display the appropriate respective label(s) properly afixed thereto.

2. Storage cabinets (not intended for combustibles) and wardrobes

(a) Sizes shall be as specified in Table 1.

(b) Finish: All metal surfaces shall be thoroughly clean and free from dirt, oil, grease and moisture. All surfaces shall be enameled, with finish leveled out to produce smooth uniform exposed surfaces without runs, wrinkles, sags, grit, thin areas or color separation.

(c) Sheet metal parts of the cabinet shall be of the minimum thicknesses specified in Table 1.

(d) Hardware:

1. Bolts, slotless head type equipped with nuts and lock washers, all plated to resist rust.

2. Door handles cast and plated, and single-door-handle type doors to be provided with a positive three-point metal latching device. Alternatively, door handles may be of the “full pull” type, in which a recessed channel with pull lip is formed into the full length of the door, with a single-point metal latching device, and a means to secure the door in the closed position without locking it, such as spring loaded clips.

3. Locks, plated, paracentric plate tumbler type.

4. Hinges, three for each door, full loop tight pin, flush butt type. One leaf of hinge secured to door frame by rivets or welding, the other leaf welded to door flange.

(e) Construction:

1. Doors flanged on all sides, with a stiffening hat section, the length of the door, welded to back of doors. Each cabinet shall have two independent doors.

2. Shelves flanged downward on all four edges; front edge with double return flange formation.

3. Shelf supports provide adjustment of shelves on 2" centers. Manufacturer’s standard shelf support system is acceptable.

4. Sides to have double return flange in front and a flange in the back.

5. Tops to flange on both sides and back, with double return flange in front, and with offset to serve as a door stop and lock rod guide.

(f) Load Requirements:

All storage cabinets and wardrobes (classes 7 - 14) shall meet the requirements of ANSI/BIFMA X5.6-1993, section 6, except that shelves of over 20 inches in depth shall be considered “Size B” in that section. A copy of the ANSI/BIFMA test report of the model(s) offered, certified by an officer of the manufacturer, is due in the State’s offices within ten (10) working days of request.

**B.** PAINTING AND MARKING

1. Finish coat is to be powder-paint, bondable polyester, or a coating providing equivalent protection. Each safety storage cabinet (classes 1 - 6) shall be painted for resistance to rust, chipping, and chemicals, and labeled in conspicuous lettering, "Flammable - Keep Fire Away". Color of finish coat for classes 1 - 6 shall be yellow.

2. Each cabinet (all classes) shall be plainly marked with the name or recognized trademark of the manufacturer, the model number, and for safety storage cabinets (classes 1 - 6) also the storage capacity.

**5.5.27 Cosmetology**

This specification is not intended to include all available types of the commodity indicated in the title of this specification, but is intended to include only those types generally used by community colleges and other state institutions for cosmetology education purposes. This specification is for use by these parties in the procurement of chairs, tables and other furniture for drying, shampooing, styling, pedicuring and manicuring as well as other associated furniture. Use for any other purpose is not intended. Use for promotional purposes is specifically prohibited.

Cosmetology furniture is characterized by stain resistant, cleanable surfaces and the ability to adjustment for customer comfort. It is the intent of this specification to procure only recognized quality, commercial grade chairs, tables, and accessories. Any furniture, which in the sole judgment of the state is judged to be of poor design or manufacture is unacceptable and the state reserves the right to reject furniture on that basis.

1. **CLASSIFICATION**

This specification covers three groups of cosmetology furniture: chairs, dryers and cabinetry. Within Groups 1 and 2, there are specific types of furniture listed below. Several Entity-specified options are allowed.

1. **GROUP 1: CHAIRS**

The chairs shall be classified into thirteen types listed below:

|  |  |
| --- | --- |
| TYPE 1A | Styling chair, upholstered: Shall be with arms and non-reclining back. It shall have a swivel hydraulic base. A footrest compatible with styling of the chair shall be furnished. |
| TYPE 1B | Styling chair, molded plastic: Same as Type 1A but with molded plastic seat and back. |
| TYPE 2A | All purpose chair, upholstered: Shall be similar to the styling chair and shall have a reclining back. A footrest compatible with the styling of the chair shall be furnished. |
| TYPE 2B | All purpose chair, molded plastic: Same as Type 2A but with plastic molded seat and back. |
| TYPE 3A | Reception chair, upholstered: Shall be with arms and upholstered to match Type 1A and Type 2A chairs. It shall have legs or a pedestal base compatible with the manufacturer's line. |
| TYPE 3B | Reception chair, molded plastic: Same as Type 3A but with molded plastic seat and back. |
| TYPE 4A | Shampoo chair, upholstered: Shall be with arms and upholstered to match the manufacturer's line. It shall have an adjustable reclining back. It shall have a leg or pedestal base compatible with the manufacturer's line. |
| TYPE 4B | Shampoo chair, molded plastic: Same as Type 4A but with molded plastic seat and back. |
| TYPE 5A | Dryer chair, upholstered: Shall be with arms and upholstered to match other chairs in the manufacturer's line. The base shall be designed compatible with the line and the chair shall be designed to accommodate chair mounted dryer units. |
| TYPE 5B | Dryer chair, molded plastic: Same as Type 5A but with molded plastic seat and back. |
| TYPE 6A | Pedicure chair, upholstered: Shall be with arms and upholstered to match the manufacturer's line. It shall have an adjustable reclining back. It shall have a basin attached and a height adjustable leg support for the customer. It shall have either a swivel mount for the chair or a step for the customer to access the seating area as compatible with the manufacturer's line. |
| TYPE 6B | Pedicure chair, molded plastic: Same as Type 6A but with molded plastic seat and back. |
| TYPE 7 | Companion seating pieces: Accessories to chairs, etc. shall be the manufacturer's standard units as described in Invitation For Bids. These units shall comply with the general requirements above and shall maintain the integrity of the manufacturer. |

1. **GROUP 2: DRYER**

The dryer units are intended to be mounted on dryer chairs (see Section I, Group 1, Types 5A and 5B above).

|  |  |
| --- | --- |
| TYPE 1 | 900 W to 1099 W dryer with top air circulation of 300 CFM or more. |
| TYPE 2 | 1100 W to 1500 W dryer with top air circulation of 400 CFM or more. |
| TYPE 3 | 1501 W or above dryer with top air circulation of 500 CFM or more. |

1. **GROUP 3: CABINETRY**

Cabinetry minimum specifications are listed herein.

1. **APPLICABLE STANDARDS**

The following documents shall form a part of this specification. The issue or revision for the respective documents which is in effect on the date of bid opening shall apply, except where specifically otherwise called for.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

* ANSI A 208.1 - Particleboard
* ANSI A 208.2- Medium Density Fiberboard
* ANSI/HPVA HP-1-2004 - American National Standard for Hardwood and Decorative Plywood

AMERICAN SOCIETY FOR TESTING MATERIALS (ASTM)

* ASTM D 635 - Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position
* ASTM D 3574 - Standard Test Methods for Flexible Cellular Materials—Slab, Bonded, and Molded Urethane Foams
* ASTM D 3884 - Standard Guide for Abrasion Resistance of Textile Fabrics (Rotary Platform, Double-Head Method)

OTHER

* CAL TB 117 - California Technical Bulletin 117 - Requirements, Test Procedure and Apparatus for Testing the Flame Retardance of Resilient Filling Materials used in Upholstered Furniture.
* Federal Specification TT-C-490C - Cleaning Methods for Ferrous Surfaces And Pretreatments for Organic Coatings
* Iron and Steel Society (ISS) Steel sheet manual.
* ASME A112.19.7 - Hydromassage Bathtub Appliances
* The International Association of Plumbing and Mechanical Officials (IAPMO) certification.
* Underwriter’s Laboratories, Inc. Standards

1. **REQUIREMENTS**
2. **GENERAL**

All furniture shall be new, unused, and a current standard product of an established manufacturer except for such deviations as may be required by this document or the Invitation for Bids.

All furniture shall present a neat, well-finished appearance and shall be free from all imperfections and defects which might affect appearance, normal life, safety or serviceability. Tubing ends shall be free from sharp edges that could cause cuts or minor abrasions to fingers during normal use. Open tubing ends shall be capped/plugged or crimped. Fasteners (screws, bolts, etc.) that are used to fasten backs, seats, shelves, etc. to the frame shall not be visible on the exterior surfaces of these parts.

All metal parts shall be inherently corrosion resistant, or suitably treated to resist corrosion.

Plastic and vinyl surfaces shall be free from ripples and thin spots and have a bright color fast appearance. Chair forms shall facilitate proper posture and relieve lower back pressure. Chairs shall have a seat front lip design that prevents any restriction of circulation in the Entity's legs

The requirements in this specification are the minimum requirements except as noted, and in accordance with applicable standards.

1. CHAIRS
2. Dimensions

The inside chair dimensions shall be at least 20 inches wide by 20 inches deep. The seat back height from the seat pan shall be at least 18 inches. Chairs and the lowest position of adjustable chair shall be 18 to 20 inches from the seating surface to the floor.

1. Steel

Steel which may be used in the fabrication of the seat frame and back frame and which shall be used in the fabrication of foot rests for Type 1 through 4 shall be commercial quality, cold rolled steel as defined in the applicable section of the Sheet Steel Manual. Steel tubing shall be either seamless or continuous seam welded. The thickness of steel used for individual parts shall be 18 gauge for tubular steel or one fourth (1/4) inch for plate steel and are minimum thicknesses permitted subject to the tolerance given in the Sheet Steel Manual. The steel tubing shall be smooth, free of rust, scale, pits, scratches, laps, crimps, and buckles.

1. Foam Cushion

The urethane foam shall be a flexible high resiliency polyurethane material suitable for use as furniture cushioning in a spa or salon environment. It shall be manufactured from pure polyether type polyurethane without the addition of fillers. The foam shall be open cell structure, 100% new material and shall be such that odors and absorbed materials from alcohol, body fluids, and other substances shall be readily removed by washing with soap and mild detergents without damage to the urethane foam. Minimum seat thickness shall be 3 inches. Minimum back thickness shall be 2 inches.

The urethane foam shall be tested in accordance with ASTM-3574, and shall conform to the following minimum standards (Section numbers refer to the D3574-05 issue):

1. **Density -** The procedure as outlined in Sections 9-14 shall be followed to determine the density. Density values have a tolerance of +/- 0.1. The minimum density shall be 1.7 pounds per cubic feet (lbs/ft3).
2. **Compression Set -** Constant deflection expressed as a percentage of the original thickness in Sections 37-44 shall be used to determine the compression set. The maximum set shall be 10% of the original thickness of the specimen when compressed to 90%. Report this value as Ct.
3. **Load Deflection -** Indentation Force Deflection Test- Specified Deflection Test B1. Sections 16-21 shall be used to determine the Indentation Force Deflection (IFD). The specimen size shall be 15"x 15" x 4" consisting of a single piece of material. The IFD ranges at 25% and 65% deflection, shall be as follows:

Seat Cushion IFD Density: 38 - 42 pounds

Back Cushion IFD Density: 18 – 23 pounds

1. **Fatigue Test -** Static Force Loss Test at Constant Deflection Test I1. Sections 77-84 shall be used. After testing, the specimen shall show no breakdown in physical structure. Permanent set (loss in thickness) shall not be more than 5% of the original thickness. The loss in IFD shall not be more than 30%. Use the same size sample as used in (iii) above.

Except where otherwise required herein, for chairs made with hard molded plastic, no seat back is required and the seat cushion must be constructed of one piece meeting the requirements herein, form fit and matching the seat, and removable. For all other chairs, each pad shall be one piece and securely bonded to the base.

Cushions are to have a protective interior lining between the vinyl and foam cushion to prevent internal abrasion and extend chair life.

1. Fabric

Unless otherwise specified in the Invitation For Bids, the chair fabric shall be made with commercial quality expanded vinyl that is manufactured for salon or spa applications. The vinyl material shall have a minimum density of 20 oz. per square yard and meet the surface abrasion requirement for 30,000 double rubs using ASTM D 3884. Vinyl shall have a minimum thickness of 1.2 millimeters.

All upholstery tailoring shall be performed in accordance with accepted best industry practice. Appearance shall likewise be typical of results obtained by such tailoring techniques. Seams should not be placed on a heavy-wear location of the chair. The vinyl shall resist staining, fading, stretching, stitch tearing and cracking during normal use.

For upholstered chairs, the padded seat and backrest assembly shall be securely attached with a minimum of four (4) tabs or fasteners and shall not loosen under normal use. For Molded plastic chairs, the seat cushion shall be removable. The seat and back-upholstery shall match in construction, design, and color.

1. Flammability

All upholstery components (fabrics, vinyls, leathers, foams, batting, etc.) used in seating products being offered, shall comply with the applicable requirements of the State of California Technical Bulletin (TB) 117, latest issue in effect. Compliance with TB 117 shall be determined through testing and periodic retesting of the upholstery components by the component or seating manufacturer or an independent laboratory.

At the State’s request, manufacturers may be required to provide evidence of compliance with TB 117 in the form of laboratory test reports showing that the tested upholstery components meet all applicable sections of TB 117. In order to be considered complete and acceptable, a test report must include: specific identification of the tested product; the individual specimen results; the test date (not more than 3 years old when submitted); and the name of the person responsible for flammability compliance. Failure to provide the State requested test certifications may results in a product not being accepted by the State and declared deviant from this specification.

1. Plastic (Type 1B, 2B, 3B, 4B, 5B and 6B)

Plastic chairs shall be made of a high density injection molded plastic which shall resist chipping, breaking, cracking, staining, and fading during normal indoor use and shall have a removable seat cushion.

The molded back and seat pan shall be matching with built-in anti-static compounds to retard dirt attraction. Plastic shall have a maximum burn rate of 1” per minute when tested in accordance with ASTM D635.

1. Plywood

Plywood when used for seats and backs shall be maximum moisture content of 10% and meet the requirements of ANSI/HPVA HP-1 2004. Plywood shall be a minimum of three-quarter inch (3/4”) panel, seven-ply.

1. Particleboard

Particleboard used for seats and backs shall be high density, a minimum of five-eights inch (5/8”) thick that’s warp, abrasion and moisture resistant. Maximum moisture content shall be 10%. Minimum density shall be forty-five pounds (45 lbs) per cubic foot.

1. Lift and Base (for Types 1A, 1B, 2A and 2B)

Hydraulic lift base have a foot-treadle operated hydraulic lift with a 7 to 8 inch vertical lift and a minimum of 350 pounds lifting capacity. The base shall have a rubber mat and a round base of at least 20 inches diameter. The diameter shall be sufficient such that any person (up to the 350 lb. weight limit) shall not slip or tip the chair. The hydraulic lift shall allow the chair to rotate 360 degrees and also be locked at a specific point in it’s rotation by the operator.

1. Footrest (for Types 1A, 1B, 2A and 2B)

The footrest shall be U-shaped or T-shaped unless otherwise specified in the Invitation For Bids. The footrest shall be tubular in design with at least a 12 inch inside width. The footrest shall be entirely steel with no plastic covering.

1. DRYERS

Dryer units shall be designed for use with the dryer chair (Group 1, Types 5A and 5B). It shall be a complete operating unit with an electric heating unit, timer, temperature control, blower with control, and hood. Applicable electric components including three wire cord and grounding plug shall be UL listed. Voltage for the dryer shall be 110 V unless otherwise specified in the Invitation For Bids. The power and air circulation requirements are listed by type in Section I, CLASSIFICATION, under Group 2, DRYERS.

1. CABINETRY

Cabinetry design shall be similar to that referenced in Invitation For Bids. Unless otherwise specified, it shall be the manufacturer's standard product as shown in catalog or sales literature.

All cabinetry shall exhibit good workmanship. Drawers and doors shall be property fitted and aligned, joints shall be tight and straight, using adequate glue and/or mechanical fasteners as applicable.

All electrical components, outlets, cords, etc. shall be of the 3 wire grounding type and U/L listed.

1. Core Materials

All panel cores shall be a minimum 45 lb. density industrial grade particleboard as tested by ANSI A 208.1 or fiberboard tested by ANSI A 208.2 with the following exceptions: cabinet tops and drawer fronts within 36” of a basin. All cabinet tops are a minimum 45 lb. density industrial grade moisture resistant particleboard ANSI A 208.1. Drawer fronts within 36” of a basin shall be a minimum 45 lb. density industrial grade moisture resistant particleboard ANSI A 208.1.

Cabinetry exposed side panels, back, top, drawer fronts and doors shall be ¾” thick for widths up to 36” and 1” thick for widths of 36” or greater. Cabinet backs that are not exposed shall be ¼” thick.

Drawers shall be ½” thick if constructed of particleboard or fiberboard. Metal drawer interiors are also acceptable. The drawer face shall be a minimum ¾” thick. If drawers are constructed of particleboard, fiberboard, wood, or related material, such shall be fully protected against staining and water and chemical absorption, by proper application of polyurethane, epoxy, or equivalent coatings.

1. Finishing Materials

Exposed surfaces including drawer or door fronts and interior surfaces with an open design shall be constructed with a decorative high-pressure plastic laminate offering at least four (4) simulated wood grains and colors or "solid" colors with a balancing backing sheet. Colors shall be matching and coordinated as defined in the Invitation for Bid.

Interior surfaces with closing doors or drawers shall be faced with a coordinating thermally fused melamine laminate.

All exposed edges of panels, doors, shelves and drawer faces shall be self edged or edged with a coordinated edging of 3mm PVC.

Vertical support members shall be all one piece cores without splices.

1. Mirrors

Mirrors are a minimum of 1/8” thick break and impact resistant mirrored acrylic. Mirrors that are surface mounted with clips shall have exposed edges ground smooth. Mirror clips or clamps, when used, shall be of a type intended for support of the mirror provided, in continuous commercial use. Light duty plastic clips or clamps are not acceptable. Mirrors set in a frame shall have the side vertical support member formed from one piece of wood without slices. Mirror edges that are set in grooves or recesses shall be set deep enough to prevent cut edges from being visible.

1. Hardware

The drawers shall have full extension, 150 lb. load rated, bottom corner mounted drawer slides that shall operate smoothly and evenly. Cabinet doors shall have five knuckle institutional grade hinges. Cabinet doors shall have a magnetic or mechanical door catch with a maximum 5 lb. pull requirement.

1. Drawer Construction

Drawer fronts and drawers are to be either conventional or French dovetailed. Box corner construction of all corners and overlapping drawer fronts are acceptable. For particleboard or fiberboard construction, box corner joints shall include screws, glued pegs, or glued biscuits.

1. **FINISH (Group 1 and 2 only)**

All painted surfaces shall be thoroughly cleaned and free of dirt, oil, grease, moisture, or other foreign material prior to painting. The cleaning and priming of the surfaces shall conform to one of the methods of Federal Specification TT-C-490C, at the manufacturer's option.

1. PAINT FINISH

After cleaning, the frame shall be dipped or sprayed with a suitable primer coat that is compatible with the top or finish coat. The finish coat shall consist of a baked enamel coating applied and baked in accordance with the enamel manufacturer's recommendations (or the manufacturer's standard epoxy based coating of comparable quality). The enamel shall be a non-chipping type. There shall be no indication of rust or decay under the coating. An equivalent thermo-set epoxy powder coating, electrostatically applied and baked on, shall also be acceptable.

1. CHROME FINISH

An electroplated chrome finish is also acceptable. The frame shall be subject to the manufacturer's standard electrical and chemical cleaning process. Chrome shall be plated over a nickel base. The chrome shall be corrosion and chip resistant. The number of joints welded after chrome plating shall be kept to a minimum. The joint shall be cleaned and dressed and finished with a rust preventative paint to match the chromed finish.

Product should be available either painted or chrome plated as specified in the Invitation for Bids.

1. **FABRICATION**
2. BASINS/BOWLS

All basins or bowls shall be made of ABS chip proof plastic, cultured marble, porcelain, stainless steel, polyurethane, or fiberglass reinforced plastic as specified in Invitation For Bids. ABS basins or bowls shall be a minimum of ¼” thick. Under no circumstances may the basin or bowl, as provided, distort under loads typical in severe use.

Bowls shall be furnished with a single handle, IAPMO approved fixture, a dual function pull-out spray head and built-in vacuum breaker hose, and a drain strainer and necessary mounting hardware. The basin or bowl should have a minimum of 4 gallons tub capacity.

Piping shall be fully drainable and cleanable with no closed loop circulation piping.

Pedicure basins shall be contoured to allow both feet to be submerged. For pedicure chairs with whirlpool controls, piping shall be rigid or flexible Schedule 40 PVC and fittings or copper type L pipe. Pumps for the pedicure basin shall be self draining with volute drain and shall have an access panel for access to the pump and drain area. All units, whether factory or field assembled, are required to have suction fittings installed which are listed to ASME A112.19.7 latest issue for water retention.

1. WELDS

All brazing and welding shall assure rigid joints in proper alignment. Welds shall be sound, without porosity, and shall provide rigid, one-piece units, free of burrs and sharp edges. Bends in the welded frame shall be machine formed.

1. HARDWARE

Bolts, nuts, screws, rivets and other fastening devices used in chair construction shall be made of corrosion resistant material.

1. **ENGLISH REQUIREMENT**

All written documentation including safety placards, manuals, labels, and other such written communication on or about this equipment shall be supplied in at least English, unless otherwise specified.

**5.5.28 OFFICE PANEL SYSTEMS, OPEN PLAN**

This specification covers only new and not refurbished Open Plan Office Systems and associated hang-on components. This specification does not include all types and sizes of Open Plan Office Systems that are commercially available, but only those generally considered suitable for State agencies.

In addition to compliance with this specification, any system approved for Open Plan Office Systems shall offer a range of panel and work surface sizes and accessories consistent with general industry standards. Offerings shall include, but are not limited to: Transaction work surfaces, keyboard surfaces, various configurations of tables, flipper door cabinets, shelves w/dividers, suspended drawer storage, stand alone drawer storage, mobile drawer storage, lateral files, task lighting, marker boards, tackboards, coat hooks, wire management, drawer accessories, paper management, electronic support accessories, and a minimum of four (4) categories of fabric.

1. **CLASSIFICATION**

This specification contains two parts:

1. **PART I – MANUFACTURER’S ORIGINAL EQUIPMENT (ALL NEW COMPONENTS)**
2. TYPE I: High Performance Acoustical Panels (0.80 NRC or higher)
   * 1. Style A - Communications panel with raceway for running wires and cables to adjacent panels
     2. Style B - Electrified panels with raceway and electrical outlets
3. TYPE II: Regular Performance Acoustical Panels (Less than 0.80 NRC)
4. Style A - Communications panel with raceway for running wires and cables to adjacent panels
5. Style B - Electrified panels with raceway and electrical outlets
6. **PART II – REFURBISHED (RENEWED) SYSTEM COMPONENTS**

The following documents of latest issue in effect on the date of the Invitation for Bids shall form a part of this specification to the extent described in REQUIREMENTS:

1. **APPLICABLE STANDARDS**

American Society For Testing and Materials (ASTM)

1. ASTM-C423 - Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method
2. ASTM-E84 - Test for Surface Burning Characteristics of Building Materials

National Electrical Manufacturer's Association (NEMA)

1. NEMA-LD3-1991 - HIGH-PRESSURE DECORATIVE LAMINATES

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

1. ANSI/BIFMA X5.6-1986 American National Standard for Office Furnishings Panel Systems-Test
2. **REQUIREMENTS**
   1. **GENERAL REQUIREMENTS FOR ALL TYPES OF PANELS**
   2. Design
   3. The open plan office system furnished under this specification shall be of the manufacturer's current standard production. The manufacturer shall have offered open plan office system/s to commercial and/or industrial Entities for a minimum period of two years.

Upon request by the State, the manufacturer shall furnish the State a list of Entities of the system offered, to include names, telephone numbers, and addresses of the Entities.

The State will survey Entities of the proposed system to determine the long term performance and reliability characteristics of the system. If a reasonable doubt exists as to the long term performance and reliability, the State reserves the right to reject the system on this basis. It is the Vendors responsibility to prove to the satisfaction of the State that the proposed system does in fact meet long term performance and reliability standard.

* 1. Flammability

All panels shall be so constructed that the entire unit shall be Class A fire rated. See Section VI, Acceptance Evaluation and Quality Assurance.

* 1. Installation

Panel attachments must be designed so that Entities may easily be able to re-install and rearrange panel configurations without specialized help and/or tools and maintain original system strength and rigidity.

Connection shall provide for assembling panels in 2-way, 3-way or 4-way intersections. All panels must be individually removable without dismantling or moving adjacent panels.

Panels shall be mounted a maximum 1" off the floor for maximum noise isolation. When assembled, panels shall be free standing and self supporting and no connections to the walls, ceiling or floor shall be made without agreement with the owner.

The dimensions and layout shall be as indicated on drawing included with the Invitation for Bid. If drawings are not furnished, panel sizes shall be as specified in the Invitation for Bids. The Vendor shall be responsible for verification of all component quantities and sizes set forth in the IFB.

* 1. Construction

1. Frame

The frame shall be constructed in such a manner that it will support hang-on components, work surfaces, etc. with attendant loads, without warping, bending, flexing or breaking.

1. Fabric Covering

The fabric covering shall be as specified in the IFB, and shall be certified fire retardant with Class A fire rating.

The fabric shall be applied smoothly and wrinkle free and the weave shall be straight with the panel. It shall be attached to the frame by a removable spline or other satisfactory method that will allow removal and replacement of fabric as required. No seams or fabric joints shall be visible in faces of panels unless required for special designs.

1. Vertical Support Standards

The standard shall be capable of supporting a worktop with two hanging pedestals loaded in accordance with "worksurfaces with supported drawers" tests ANSI/BIFMA X.5.6 1986) and meeting the acceptance level specified. Worksurfaces shall be adjustable in height within a minimum range of 25”-40” in increments no greater than 1 ¼”.

1. Wire Management

Panels shall be supplied in style A communications, or B electrified as described below.

Style A communications panels shall be communications panel with raceway to accommodate electric and/or communications cables to allow passage to adjacent panels.

Style B panels shall be electrified panels with raceways and a minimum of two prewired electric outlets on each side.

The total raceway capacity (viewed from the end of the raceway) shall be a minimum of 5.3 square inches in which to accommodate electricals and communications cables.

Style A and B panels shall also serve as infeed panels equipped with a means of concealing cables entering from the ceiling, walls or floor.

All Style B electrified panels shall have an eight-wire, four circuit supply. All electrical components shall meet current U/L and local code requirements.

1. Design

Panels shall be of the manufacturers standard design. They shall be Style A, Communications or B Electrified as specified.

The raceway cover shall be securely held in place.

1. Panel Connections

All panel connections and perimeter framing components are to be fastened by interlocking concealed connectors and shall have smooth, tight fitting connections. No special tools shall be required for assembly or dismantling.

All connections between adjacent panels in straight runs and at intersections shall be lightproof.

1. Components

All components of panels, e.g. clips, splines, connectors, feet, posts, levelers, etc., shall be of manufacturer's standard inventory and shall be available for purchase by the Entity for the life of the system.

* 1. **SPECIFIC REQUIREMENTS FOR PANELS**
* Design

Type I panels shall be with fabric covering on both sides. The manufacturer's standard trim shall be furnished. Type II panels may be offered with or without fabric covering as specified in the IFB.

* Sound Absorption

The sound absorption rating for Type I panels shall be minimum N.R.C. of 0.80 for the entire surface area of the panel, when tested in accordance with ASTM C423, latest edition. (See Section VI, Acceptance Evaluation and Quality Assurance.)

* 1. **GENERAL REQUIREMENTS FOR FURNITURE COMPONENTS**
  2. Panel System

The panel system shall be as specified above to accommodate the components required and provide the necessary stability to make the system both safe and durable and to provide a comfortable and convenient workstation.

* 1. Worktops

Worktops shall be minimum 1-1/8" thick lumber core, minimum 1-1/8" thick 45 lbs/cu. ft. density flakeboard core, or minimum 1-1/8" thick plywood core. All worktops shall be top surfaced with decorative thermosetting high-pressure plastic laminate meeting NEMA-LD3-1991, 0.050” thickness requirements and the bottom finished with brown backer material.

The top shall be radiused, or soft vinyl durable edged, securely applied.

Provision shall be made in the worktop to accommodate the routing of electrical cords and cables from table top devices and hang-on devices to the electrical and communication outlets in the panels in a safe and orderly manner. This may be accomplished by holes w/grommets, cut-outs in the worktop adjacent to the panel, cable management troughs, or other approved means.

* 1. Glides

All components resting on the floor shall have rustproof adjustable glides.

* 1. Construction

Methods and processes shall be in keeping with good industry practice and the system shall provide a safe, durable and convenient workstation for the purpose intended.

Hanging components shall have adjustable mounting height.

* 1. Locks

All drawer and door units shall be equipped with individual locks or central locking system meeting ANSI/BIFMA X5.6 latest edition.

* 1. Safety

All hanging components must meet ANSI/BIFMA's Component Dislodgement Test.

* 1. Electrical Appliances

All electrical appliances that may be furnished with the office systems covered in this specification shall be UL approved for use with panel systems and shall bear the UL label or nameplate.

* 1. Size

Sizes shall be the manufacturers standard sizes and length shall be as required to mesh with panel standards in the location indicated.

* 1. **CONSTRUCTION OF INDIVIDUAL COMPONENTS**

1. Worktops

For the purposes of this specification, a “worktop”, or “work surface” is defined as a single unit of construction with properties as set forth in Section III.C.2 of this specification. The worktop shall be so constructed that hanging drawer units may be attached underneath the top. Worktop shall meet requirements of static load test for work surfaces of ANSI/BIFMA X5.6 latest edition.

The worktop shall be supported at each end by one, or more, of the following means, and may be mounted by employing any one, or more, of the following methods:

1. End clip attached to panel vertical support standard
2. Floor-standing pedestal
3. Cantilever bracket
4. Floor-standing leg, with bracket(s) to attach worktop to vertical support standard. When floor-standing leg is used, the installation of such shall not restrict, or interfere with the movements of the occupant.
5. A combination of any of the above. Ex: Floor-standing pedestal with cantilever bracket, end clip, leg, or a second floor standing pedestal

Worktops 72”, or greater, which have an unsupported span of 66”, or greater, shall have at least one intermediate support. For the purposes of this specification, “intermediate support” is defined as: 1) Floor-standing pedestal, 2) Cantilever bracket, 3) Floor-standing leg. All worktops shall be adequately supported to prevent sagging.

1. Hanging Pedestal Drawer Units

The pedestal units shall be steel, provided with a method of secure fastening to the underside of the worktop. Drawer fronts may be durable commercial type plastic. When attached, the entire unit, pedestals and worktop shall meet the requirements of ANSI/BIFMA Tests, Section VI. Unless otherwise specified in the Invitation For Bids, the pedestal depth dimension shall be a minimum of 18".

1. Pedestal Drawer Units, Mobile Type or Floor Standing

The pedestal unit shall be steel, equipped with casters or shall stand on the floor as specified in the Invitation for Bids. It shall fit under the worktop without excessive vacant space between the pedestal and top. The units shall meet the requirements of ANSI/BIFMA Tests, Section VI. The pedestal depth dimension shall conform to the work surface depth dimension, i.e. the outside depth dimension of the pedestal unit shall be within at least 3½" of the depth dimension of the work surface provided.

1. Hanging Binder Cabinet

The unit shall be front opening cabinet for storing ring binders. It may be equipped with doors hinged at top or bottom with lid supports to prevent accidental dropping of the front, or it may be equipped with sliding doors. The unit may be fabric covered or in other materials. It shall meet the requirements of ANSI/BIFMA Tests, Section VI. The overall dimension front to back shall not exceed 16¼".

1. Hanging Shelf Unit (Full height & ½ height)

The unit shall be a horizontal shelf designed to accommodate vertical dividers to be supplied when specified. It shall meet the requirements of ANSI/BIFMA tests, Section VI.

1. Power Poles

Unless otherwise specified in the Invitation for Bids, infeed from the ceiling shall be through a rigid pole from the ceiling to the panel connection. Flexible infeed from the ceiling to the panel connection is not acceptable. All infeeds shall be through UL approved connectors.

1. Colors

Unless otherwise specified in the Invitation for Bids, the manufacturer's standard color offering shall be acceptable.

1. Paper Management

All flat shelves and storage units shall have available at least the following: Vertical shelf dividers and stacked or stacking paper bins for horizontal paper storage. Shelves metal end supports or panels, full height, for heavy duty use with safety locks to prevent accidental dislodgement, to be available.

1. Miscellaneous Accessories

The system shall have available accessory items for filing, coat hooks, racks, doors, etc., and will be required when specified in the Invitation for Bids.

* 1. **WORKMANSHIP AND INSTALLATION**

Vendor shall provide all labor and material necessary for a complete installation as shown on the floor plan attached to the Invitation for Bids. This will include such work as leveling, installing accessories, alignment, wiring (if required), etc.

The finished installation of panel configurations shall not sway and must be clean and free from any defects, which may affect the appearance or serviceability.

Only manufacturer's Standard Products in design, materials, and construction; not modified versions produced for conformance to our specs will be considered for evaluation and acceptance. Any questions concerning acceptability of the quality offered shall be the sole decision of the Division of Purchase and Contract.

**5.5.29 Sit-to-stand Desks**

A sit-stand desk is an intermediate form of office workstation between a typical seated [desk](https://en.wikipedia.org/wiki/Desk) and a [standing desk](https://en.wikipedia.org/wiki/Standing_desk). It allows the Entity to position the workstation at a level convenient for sitting or standing. Sit-stand desks may be effective at reducing [sitting](https://en.wikipedia.org/wiki/Sitting) time during the work day between 30 minutes and two hours per working day.

Manufacturer’s name and model/catalog numbers used are for the sole purpose of identification and to establish general quality level desired. Such references are not intended to be restrictive and comparable products of other manufacturers will be considered. However, Vendors are cautioned that any deviation from specifications are required to be pointed out in its Proposal. Also Vendor shall include with its Proposal sufficient documentary evidence to demonstrate the qualitative, functional, operational, organizational and conformational equivalence of the Proposal item to the specified item.

**MANUFACTURERS**

1. VARIDESK Pro Plus™ 36; PRODESK® 60 Electric; etc.
2. UPLIFT
3. JARVIS
4. EUREKA ERK-SW-40T; ERK-CV-26B; etc.
5. INTERION T9F670167, etc.

**5.5.30 Shelving, metal, Library**

**I. CLASSIFICATION**

* Cantilever Bracket with Case
* 4-Post Type

**II. APPLICABLE SPECIFICATIONS AND STANDARDS**

Referenced specifications and standards shall be the latest issue in effect on the date of the Invitation for Bids. Copies of referenced materials may be obtained from the issuing organizations at the addresses shown. The following documents form a part of this specification.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI), 1430 Broadway, New York, NY 10018:

1. ANSI/NISO Z39.73-1994 (R2012) Single-Tier Steel Bracket Library Shelving

**5.5.31 Dormitory**

The Dormitory category includes desks, dresser, loft, cabinet, armoire, bunkbed, nightstand, etc. Manufacturer’s name and model/catalog numbers used are for the sole purpose of identification and to establish general quality level desired. Such references are not intended to be restrictive and comparable products of other manufacturers will be considered. However, Vendors are cautioned that any deviation from specifications are required to be pointed out in its Proposal. Also Vendor shall include with its Proposal sufficient documentary evidence to demonstrate the qualitative, functional, operational, organizational and conformational equivalence of the Proposal item to the specified item.

**MANUFACTURERS**

1. Savoy
2. New England Woodcraft
3. Foliot
4. Norix
5. University Loft Company
   1. **FEDERAL, NORTH CAROLINA, ANSI/BIFMA & Other APPLICABLE STANDARDS**

The following shall be required for each item bid unless otherwise noted including labeling requirements. Standards denoted with an **asterisk (\*)** are applicable when federal funds are involved in its purchase. All products submitted shall comply with the applicable standard(s) as referenced in the category bid.

**By execution of this IFB, the Vendor attests that its company complies with all applicable Federal, State and Local Standards for each product by manufacturer bid in all categories.**

***Federal***

All products submitted shall comply with the applicable Federal standard(s) as referenced in [**A Guide to United States Furniture Compliance Requirements**](https://www.nist.gov/sites/default/files/06272016-guidetousfurniture.pdf) in the category bid. Applicable Federal standards are:

|  |  |  |
| --- | --- | --- |
| 1. 40 CFR 770 Formaldehyde Emission Standards for Composite Wood Products | 1. 16 CRF 1303 Ban of Lead Containing Paint and Certain Consumer Products Bearing Lead-Containing Paint | |
| 1. 16 CFR 1500.87 Children's Products Containing Lead: Inaccessible Component Parts | 1. 16 CFR 303.32 Products Containing Reused Stuffing | |
| 1. EPA CPG [Comprehensive Procurement Guidelines for Non-Paper Office Products \*](https://www.epa.gov/smm/comprehensive-procurement-guidelines-non-paper-office-products%2302%2302#02) | |

***North Carolina***

|  |  |
| --- | --- |
| 1. G.S. 143-58.2 Recycled Content \* | 1. G.S. 130A-309.14(l) Recycled Steel \* |
| 1. North Carolina Fire Code 805 | |

***ANSI/BIFMA***

|  |  |
| --- | --- |
| 1. ANSI/BIFMA X5.1-2017 General-Purpose Office Chairs–Tests | 1. ANSI/BIFMA X5.9-2012 Storage Units |
| 1. ANSI/BIFMA X5.3-2007 (R2012) Vertical Files | 1. ANSI/BIFMA X5.11-2015 Large Occupant Office Chairs–Tests |
| 1. ANSI/BIFMA X5.4–2012 Lounge Seating | 1. ANSI/BIFMA X6.1-2012 Educational Seating |
| 1. ANSI/BIFMA X5.5-2014 Desk Products | |

***Other***

|  |  |
| --- | --- |
| 1. California Technical Bulletin (Cal TB) 117-1203 Requirements, Test Procedure and Apparatus for Testing the Smolder Resistance of Materials Used in Upholstered Furniture | 1. 4CCR 1374.3 Barclays Official California Code of Regulations |
| 1. NFPA 261 Furniture Mock-Up Method | 1. NFPA 260 Component Method |
| 1. ASTM E 1537 | 1. California Technical Bulletin 133 |
| 1. UL 2040 (2015) Standard for Folding Rollaway Tables |  |

* 1. **North Carolina General Statutes 143-57.1 - Furniture requirements contracts (as amended by Session Law 2013-73)**

**G.S. 143-57.1. Furniture requirements contracts.**

(a) State Furniture Requirements Contract. - To ensure agencies access to sufficient sources of furniture supply and service, to provide agencies the necessary flexibility to obtain furniture that is compatible with interior architectural design and needs, to provide small and disadvantaged businesses additional opportunities to participate on State requirements contracts, and to restore the traditional use of multiple award contracts for purchasing furniture requirements, each State furniture requirements contract shall be awarded on a multiple award basis, subject to the following conditions:

(1) Competitive, sealed bids must be solicited for the contract in accordance with Article 3 of Chapter 143 of the General Statutes unless otherwise provided for by the State Purchasing Officer pursuant to that Article. Bids shall be solicited on a historical weighted average of specific contract items and not on a single item within a class of items. Historical weighted average shall be based on information derived from the State's electronic procurement system, when available, or other available data.

(2) Subject to the provisions of this section, bids shall be evaluated and the contract awarded in accordance with Article 3 of Chapter 143 of the General Statutes.

(3) For each category of goods under each State requirements furniture contract, awards shall be made to at least three qualified vendors unless three qualified vendors are not available. Additionally, if the State Purchasing Officer determines that there are no qualified vendors within the three best qualified vendors who offer furniture manufactured or produced in North Carolina or who are incorporated in the State, the State Purchasing Officer shall expand the number of qualified vendors awarded contracts to as many qualified vendors as is necessary to include a qualified vendor who offers furniture manufactured or produced in North Carolina or who is incorporated in the State, but the State Purchasing Officer shall not be required to expand the number of qualified vendors to more than six qualified vendors. A vendor is qualified under this subsection if the vendor's products conform to the term contract specifications and the vendor submits a responsive bid.

(4) Repealed by Session Laws 2013-73, s. 1, effective June 12, 2013.

(a) GSA Furniture Schedule. - Vendors meeting the following requirements are treated as qualified vendors under any State

furniture requirements contract:

(1) The vendor's products are included on a United States General Services Administration (GSA) Furniture Schedule.

(2) The vendor is a federally qualified vendor within the GSA Furniture Schedule.

(3) The vendor offers products on the same pricing and specifications as the vendor's products included on the GSA Furniture

Schedule.

(4) The vendor is a resident Vendor as defined in G.S. 143-59(c) or the vendor offers products manufactured or produced in

North Carolina.

(b) Definition. - For purposes of this section, "furniture requirements contract" means State requirements contracts for casegoods, classroom furniture, bookcases, ergonomic chairs, office swivel and side chairs, computer furniture, mobile and folding furniture, upholstered seating, commercial dining tables, and related items.

(c) Authority to Purchase. - An agency may purchase from any vendor certified on the State furniture requirements contract, including vendors meeting the requirements of subsection (a1) of this section. An agency shall make the most economical purchase that it determines meets its needs, based upon price, compatibility, service, delivery, freight charges, contract terms, and other factors that it considers relevant.

* 1. **Division of Adult Correction, Department of Public Safety Products Preference G.S. 148-134**

All agencies shall give preference to [**Correction Enterprises**](https://www.correctionenterprises.com/products/) when purchasing furniture. Furniture may be purchased from this contract only when it has been determined that Correction Enterprises cannot satisfy the requirement or item(s) will not be available when needed. The purchasing file should contain a waiver from Correction Enterprises stating that the item(s) cannot be supplied, and products can be accessed by clicking on the link above.

* 1. **CERTIFICATION AND SAFETY LABELS**

All manufactured items and/or fabricated assemblies subject to operation under pressure, operation by connection to an electric source, or operation involving a connection to a manufactured, natural, or LP gas source shall be constructed and approved in a manner acceptable to the appropriate state inspector which customarily requires the label or re-examination listing or identification marking of the appropriate safety standard organization; such as the American Society of Mechanical Engineers for pressure vessels; the Underwriters Laboratories and /or National Electrical Manufacturers’ Association for electrically operated assemblies; or the American Gas Association for gas operated assemblies, where such approvals of listings have been established for the type of device offered and furnished. Further, all items furnished shall meet all requirements of the Occupational Safety and Health Act (OSHA), and state and federal requirements relating to clean air and water pollution.

* 1. **DEVIATIONS**

The nature of all deviations from the Specificationslisted herein shall be clearly described by the Vendor. Otherwise, it will be considered that items offered by the Vendor are in strict compliance with the Specifications provided herein, and the successful Vendor shall be required to supply conforming goods. Deviations shall be explained in detail below or on an attached sheet. However, no implication is made or intended by the State that any deviation will be acceptable. Do not list objections to the North Carolina General Terms and Conditions in this section.

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# CONTRACT ADMINISTRATION

All Contract Administration requirements are conditioned on an award resulting from this solicitation. This information is provided for the Vendor’s planning purposes.

**CONTRACT ADMINISTRATOR**: A representative of the Agency who is responsible for the functions that are performed after all parties have signed a contract, including any modifications to the contract.

State Contract Administrator: [**Bahaa Jizi**](mailto:Bahaa.Jizi@doa.nc.gov) (984)-236-0211

**CONTRACT MANAGER:** A representative of the agency or awarded vendor who ensures compliance with the contract terms and conditions while giving attention to the achievement of the stated output and outcome of the contract.

State Contract Manager:  [**Ian Fox-Castro**](mailto:ian.m.fox-castro@doa.nc.gov)(984)-236-0249

Note: In the event the State’s Contract Administrator or Contract Manager changes, notification will be sent to the Vendor’s Contract Manager and the Contract Synopsis on the DOA P&C website will be updated.

1. **CONTRACT MANAGER AND CUSTOMER SERVICE**

The Vendor shall be required to designate and make available to the State a Contract Manager. The Contract Manager shall be the State’s point of contact for contract related issues and issues concerning performance, progress review, scheduling, and service.

|  |  |
| --- | --- |
| **Contract Manager Point of Contact** | |
| Name: |  |
| Office Phone #: |  |
| Mobile Phone #: |  |
| E-mail: |  |

The Vendor shall be required to designate and make available to the State for customer service. The customer service point of contact shall be the State’s point of contact for customer service-related issues.

|  |  |
| --- | --- |
| **Customer Service Point of Contact** | |
| Name: |  |
| Office Phone #: |  |
| Mobile Phone #: |  |
| E-mail: |  |

## ELECTRONIC PRODUCT CATALOG

Vendors have three (3) options to select from for managing products using the State’s NC E-Procurement Services to develop and manage a catalog solution. Options include:

1. Line-Item Catalog –
   1. Limited to no more than 4,000-5,000 available products.
2. Punch-Out Catalog (Option only available for more than 5,000 products)
   1. No limit to products available.
3. Ordering Instructions –
   1. No limit to products available.
      1. **Line-Item Catalog Solution**

If selected for contract award, the awarded Vendor hereby agrees to cooperate with the State and E-Procurement Services to develop a line-item catalog.  At a minimum, the Vendor shall agree to the following:

1. Vendor shall deliver a line-item catalog **within ten (10) calendar days of notice**.  By providing a line-item catalog, the Vendor shall provide a list of its products/services and pricing within a specific template format to E-Procurement Services by sending the populated template to the Contract Manager via e-mail at [eprocurementdata@its.nc.gov](mailto:eprocurementdata@its.nc.gov).
2. The State will confirm the accuracy of the electronic catalog before loading it into the E-Procurement system.  In addition, the State may determine when the electronic catalog and any subsequent revisions “go live”.
3. The Vendor shall submit an updated electronic catalog from time to time or as requested by the State to maintain the most up-to-date version of its product/service offering under the statewide contract.
4. The Vendor shall meet the following requirements:
   1. Include in the catalog the most current pricing, including all applicable administrative fees and or discounts, as well as the most up-to-date product/service offering the Vendor is authorized to provide in accordance with the statewide contract; and
   2. Maintain the accuracy of the catalog throughout the duration of the statewide contract; and
   3. Include in the catalog detailed product line-item descriptions; and
   4. Include in the catalog identifiers for specific types of products, to include NC HUB Certified (2nd Tier) products, Sustainable products, Contract products; and
   5. Include in the catalog any additional content required by the State; and
   6. Limit the line-item catalog content to the Vendor’s statewide contract offering.
5. The State shall control which statewide contracts appear in the E-Procurement System and may elect at any time to remove Vendor’s offering from the E-Procurement System.
   * 1. **Punchout Catalog Solution**

If selected for contract award, the awarded Vendor hereby agrees to cooperate with the State and E-Procurement Services to deliver a punch-out catalog solution. The Vendor agrees to the following:

a.      Vendor shall deliver a punch-out catalog which must be approved and available for use within thirty (30) calendar days of notice of award. Vendor shall limit the punch-out catalog content to the Vendor’s statewide contract offering. By providing a punch-out catalog, Vendor shall provide its own catalog (the “online catalog”), which must be capable of communication between the E-Procurement System and a supplier’s ERP system via Commerce Extensible Markup Language (cXML) 1.0 or 1.1 standards.

b.      Vendor shall ensure its online catalog marketplace is up-to-date or as requested by the State; updating the offered products/services and pricing listed on its online catalog.

c.       Vendor shall deliver a punch-out catalog that contains only items that are in the scope of the awarded contract. The Vendor shall have the capability to block from the punch-out catalog those items as designated by the State or Supplier Manager. “Blocking” is defined as the electronic removal of product information and prices from the punch-out catalog solution. For each item included, the following information shall be provided at a minimum: item description, manufacturer name, manufacturer part number, unit of measure, and contract price.

d.      The Vendor shall meet the following requirements:

1.      Vendor shall include in the catalog the most current pricing, inclusive of all applicable administrative fees and or discounts, as well as the most up-to-date product offering the Vendor is authorized to provide in accordance with the contract; and

2.      Vendor shall maintain the accuracy of the catalog throughout the duration of the contract; and

3.      Vendor shall include in the catalog detailed product line-item descriptions; and Vendor shall include in the catalog pictures when possible; and

4.      Vendor shall include in the catalog any additional content required by the State or Supplier Manager; and

5.      Vendor shall make access to the punch-out catalog available 24 hours a day, 7 days a week.

e.      The State shall control which statewide contracts appear in the E-Procurement System and may elect at any time to remove Vendor’s offering from the E-Procurement System.

Only those products awarded under this contract, as determined by the State, shall be made available for purchase from the punch-out catalog. Products not awarded under this contract shall be blocked from the punch-out catalog or may not be displayed on the site. In addition, the punch-out catalog shall not allow a user to add non-contract items to a shopping cart or to the E-Procurement System.

* + 1. **Ordering Instructions Solution**

The State will allow for ‘Ordering Instructions’ on how orders must be placed, whether directly with Vendor, or maybe placed directly with Authorized Dealer(s). The vendor will be required to provide the sales representative’s contact information at the time of award. If selected for contract award, the State will work with awarded Vendors and the E-Procurement team to create catalogs that meet the requirements for ordering instructions depending on the complexity of the awarded contract and the number of items available.

* + 1. **Vendor shall indicate which catalog solution they intend to use. Please select one (1):**

**Line-Item Catalog**

**Punch-Out Catalog**

**Ordering Instructions**

## POST AWARD CONTRACT BUSINESS REVIEW MEETINGS

The Vendor, at the request of the State, shall be required to meet based on the tiered spend schedule below, with the State for Contract Business Review meetings. The purpose of these meetings will be to review project progress reports, discuss Vendor and State performance, address outstanding issues, review problem resolution, provide direction, evaluate continuous improvement, and cost saving ideas, and discuss any other pertinent topics.

|  |  |
| --- | --- |
| **Annual Spend** | **Business Review Report/Meeting Schedule** |
| $1 - $100,000 | Bi-Annually |
| $101,000 - $1,000,000 | Annually |
| More than $1,000,000 | Semi-Annually (twice a year) |

Business Review meetings shall be scheduled as indicated in above table. Meetings shall be presented by the Vendor and be inclusive of the following:

1. Spend overview (State Agency Spend) FY Comparison
2. Volume Discount
3. Rebate
4. Tier 2 HUB Participation in Dollars (if any)
5. Product Cost Savings from list price
6. Product Accuracy Rate – Percent of equipment invoiced and shipped without post order correction
7. Complete Shipment Rate – Percent of orders filled in one (1) shipment
8. On Time Delivery Rate – Percent of orders delivered within contract delivery term
9. Sustainability Efforts and Results
10. Additional Discounts Exercised
11. Rebates
12. Challenges
13. Improvement Ideas

## CONTINUOUS IMPROVEMENT

The State encourages the Vendor to identify opportunities to reduce the total cost to the State. A continuous improvement effort consisting of various ideas to enhance business efficiencies as performance progresses.

## PERIODIC QUARTERLY SALES REPORTS

The Vendor shall be required to provide Sales Management Reports to the above designated Contract Manager on a Semi-Annuallybasis. This report shall include, at a minimum, information concerning:

1. Sales Report (total cost) by State entity, to include agencies, community colleges, universities, school systems, local government entities.
2. Sales Report Category, Items Purchased (Manufacturer), Item Description, Quantity, Unit of Measure, List Price, Contract Price, Any additional delivery charges such as specialty packaging or overnight delivery, Ordering Entity, Delivery Location (City), Order Date, Shipment Date, Delivery Date for consumables, and delivery date for non-routine consumables and equipment.

Quarterly Sales Management Reports (Spend Reports) shall be sent to[**PCReports@doa.nc.gov**](mailto:PCReports@doa.nc.gov)with the Contract Manager copied at the following e-mail address [**Ian Fox-Castro**](mailto:ian.m.fox-castro@doa.nc.gov) **.** Vendor shall include all issues identified by Vendor related to Vendor performance or to the State’s usage of the Contract.

Each report shall be well organized and easy to read. Vendor shall submit these reports electronically using the [**Vendor Quarterly Spend Data Report**](https://ncadmin.nc.gov/template-doa-pc-strategic-sourcing-stc-vendor-quarterly-spend-data/open). The Vendor shall submit these reports electronically using Microsoft Excel and as needed, either Microsoft PowerPoint or Microsoft Word. Vendor shall submit the Quarterly Management Reports by:

* **By October 15th**: Q1 Quarterly Management Report for July – September
* **By January 15th:** Q2 Quarterly Management Report for October – December
* **By April 15th:** Q3 Quarterly Management Report for January – March
* **By July 15th:** Q4 Quarterly Management Report for April – June.

This schedule aligns with the State’s fiscal year. If the contract start date does not align with the start of a quarter, the initial Quarterly Management Report shall be for the period from the contract start date to the end of the existing calendar quarter. Timely submission of all reports shall be a material term of this contract and failure to do so shall constitute a default.

Additional related sales information and/or details on user purchases may be required by the State and must be supplied within thirty (30) days of any such request. A template for any such reports may be provided by the State, at its discretion.

## ACCEPTANCE OF WORK

Performance of the work and delivery of Goods and Services shall be conducted and completed at least in accordance with the contract requirements and recognized and customarily accepted industry practices. Performance shall be considered complete when the Goods and Services are approved as acceptable by the Buying Entity.

Acceptance of work products shall be based on the following criteria:

The State shall have the obligation to notify Vendor, in writing ten (10) calendar days following completion of such work or delivery of a deliverable described in the contract that it is not acceptable. The notice shall specify in reasonable detail the reason(s) it is unacceptable. Acceptance by the State shall not be unreasonably withheld; but may be conditioned or delayed as required for reasonable review, evaluation, installation, or testing, as applicable to the work or deliverable. Final acceptance is expressly conditioned upon completion of all applicable assessment procedures. Should the work or deliverables fail to meet any specifications, acceptance criteria or otherwise fail to conform to the contract, the State may exercise any and all rights hereunder, including, for Goods deliverables, such rights provided by the Uniform Commercial Code, as adopted in North Carolina.

## INVOICES

Vendor shall invoice the Buying Entity. The standard format for invoicing shall be Single Invoices meaning that the Vendor shall provide the Buying Entity with an invoice for each order. Invoices shall include detailed line-item information to allow Buying Entity to verify pricing at point of receipt matches the correct price from the original date of order. At a minimum, the following fields shall be included on all invoices:

Vendor’s Billing Address, Customer Account Number, NC Contract Number, Order Date, Buyer’s Order Number, Manufacturer Part Numbers, Vendor Part Numbers, Item Descriptions, Price, Quantity, and Unit of Measure.

**INVOICES MAY NOT BE PAID UNTIL AN INSPECTION HAS OCCURRED AND THE GOODS ACCEPTED.**

* 1. DISPUTE RESOLUTION

During the performance of the contract, the Parties agree that it is in their mutual interest to resolve disputes informally. Any claims by the Vendor shall be submitted in writing to the State’s Contract Manager for resolution. Any claims by the State shall be submitted in writing to the Vendor’s Project Manager for resolution. The Parties shall agree to negotiate in good faith and use all reasonable efforts to resolve such dispute(s).

During the time the Parties are attempting to resolve any dispute, each shall proceed diligently to perform their respective duties and responsibilities under this contract. The Parties will agree on a reasonable amount of time to resolve a dispute. If a dispute cannot be resolved between the Parties within the agreed upon period, either Party may elect to exercise any other remedies available under the contract, or at law. This provision, when agreed in the contract, shall not constitute an agreement by either party to mediate or arbitrate any dispute.

## PRODUCT RECALL

Vendor expressly assumes full responsibility for prompt notification to the Buyer listed on the face of this IFB of any product recall in accordance with the applicable State or Federal regulations. The Vendor shall support the State, as necessary, to promptly replace any such products, at no cost to the State.

## POST AWARD PRODUCT SUBSTITUTION, ADDITIONS, & REMOVALS

Post-Award product substitutions are not permitted without prior written approval from the Contract Administrator. Proposed substitutions shall be of the same or higher quality and at the same or lower price as the original item. Failure of the Vendor to comply with this requirement shall constitute sufficient cause to hold the Vendor in default or for removal from the contract.

The items included in this IFB are expected to cover the State’s needs for the term of the contract. In the case that the State’s needs change over the term of the contract, the State reserves the right to add additional products to the contract that can be supplied by the awarded Vendor. The price for these added products will be mutually agreed to by the State and the Vendor but are assumed to be priced at a discount similar to what is being offered on the products listed in the IFB.

## PRICE ADJUSTMENTS

**Prices proposed by the Vendor shall be firm against any increase for one (1) year from the effective date of the contract.**

Price increase requests shall be submitted in writing to the Contract Manager, which shall include the reason(s) for the request and contain supporting documentation for the need. Price increases will be negotiated and agreed to by both the State and Vendor in advance of any price increase going into effect. The State is not obligated to accept pricing adjustments or increases and reserves the right to accept or reject them in part or in whole. Price de-escalation or decreases may be requested by the State at any time.

It is understood and agreed that orders will be shipped at the established contract prices in effect on the date an order is placed. Invoicing that deviates from this provision may result in contract cancellation.

## CONTRACT CHANGES

Contract changes, if any, over the life of the contract shall be implemented by contract amendments agreed to in writing by the State and Vendor.

## TAXES

No taxes shall be included in any bid prices.

## ATTACHMENTS

All attachments to this IFB are the copies found within the Ariba Sourcing Tool, and are incorporated herein, and shall be submitted by responding in the Sourcing Tool.