April 16, 2015

Dear Vendors:

Wayne State University invites you to submit your Best Educational Pricing on the purchase and deliver equipment to support new research facility. Equipment in this package will include Bid Pack 11: 4’ Biological Safety Cabinets (BSC). Note: Unit pricing is being requested in order for the University to purchase some equipment immediately, and additional equipment through May 1, 2016. For the University’s School of Medicine per the specifications and requirements contained in this Request for Quotation, entitled: Multi-Disciplinary Biomedical Building/IBio: Bid Pack 11 – 4’ Biological Safety Cabinets. Instructions to Bidders are as follows:

- Responses are to be on this request for quotation for only. Additional documents may be submitted: However, This form must be completed in full.
- Bidders that are unable to supply a specific item are encouraged to writer “NO BID” on that line. Substitutions are not allowed!
- Bidders are to note expected time of delivery for each line if the order is to ship as a partial.
- All prices will be considered FOB Destination unless otherwise indicated. If prices are Shipping Point please indicate total transportation charges.
- Your reply must be received in the WSU Purchasing Office by e-mail no later than 4:00 PM on April 24, 2015. NO LATE BIDS WILL BE ACCEPTED

Bidding documents may be obtained by vendors from the University Purchasing Web Site at http://www.forms.procurement.wayne.edu/Adv_bid/Adv_bid.html beginning April 16, 2015. When visiting the Web Site, click on the "Research" link in green. If you are interested in participating in this process, you must submit your quotation to Procurement & Strategic Sourcing by e-mail no later than April 24, 2015 as follows:

Wayne State University
Academic/Administration Building (AAB)
5700 Cass Avenue
Procurement & Strategic Sourcing, suite 4200
Detroit, MI 48202

e-mail: Ac9934@wayne.edu

No Late Bids will be accepted

Enclosed are our requirements and bid sheet for the purchase of Provide and deliver equipment to support new research facility. Equipment in Bid Package 11 will include 4’ Biological Safety Cabinets (BSC). Note: Unit pricing is being requested in order for the University to purchase some equipment immediately, and additional equipment through May 1, 2016. 

You must bid using the format shown in Schedule A. Vendors Quotation should include the following:

- Price Summary, signed by authorized agent of Vendors Company/Firm – please see Schedule A
- Vendor Profile (including at least 3 references)
- Exceptions/Restrictions (if any)

The electronic submission should be limited to no more than one of each of the following file types: 1 Word Document and/or 1 Excel Workbook and/or 1 PDF document, with a total file size less than 20 megabytes.

We look forward to receiving your quotation on or before April 24, 2015. Should you have any questions or concerns about this invitation, please contact me at (313) 577-3757 or by e-mail at Ac9934@wayne.edu
Thank you for your interest in doing business with Wayne State University.

Sincerely,

Kimberly Tomaszewski
Buyer
Information for Vendors

The Calendar of Events is as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Responsibility</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal Release of RFQ</td>
<td>Purchasing (PD)</td>
<td>April 16, 2015</td>
</tr>
<tr>
<td>Questions due to Procurement &amp; Strategic Sourcing</td>
<td>VENDORS</td>
<td>April 20, 2015, no later than 12:00 (noon)</td>
</tr>
<tr>
<td>Delivery of Quotations by e-mail to:</td>
<td>VENDORS</td>
<td>April 24, 2015 by 4:00 p.m.</td>
</tr>
<tr>
<td><a href="mailto:Ac9934@wayne.edu">Ac9934@wayne.edu</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Announcement of Selected VENDOR</td>
<td>PD</td>
<td>Week of May 1, 2015</td>
</tr>
<tr>
<td>Readiness for Service/Contract Commencement</td>
<td>VENDORS</td>
<td>Week of July 2015</td>
</tr>
<tr>
<td>Delivery and Acceptance</td>
<td>VENDORS/ET</td>
<td>July 2015</td>
</tr>
</tbody>
</table>

The University will make every effort to adhere to the above schedule. It is subject however, to time extensions. This would be in the event that further clarification of responses or terms of contract are in the best interest of the University and in the event the University requires more time to assure that the selection of the Vendor is in accordance with its policies, rules and regulations as well as actual timing needs.

Wayne State University (hereafter referred to as UNIVERSITY) is a national research university with an urban teaching and service mission. It is a constitutionally autonomous public university with 13 schools and colleges, has an enrollment of approximately 31,000 students, and has an alumni roster of over 235,000. It is rated among the top 4 percent of all colleges and universities nationwide as classified by the Carnegie Commission.

Expenses for developing and presenting quotes shall be the entire responsibility of the Vendor and shall not be chargeable to the University. All supporting documentation and manuals submitted with this quotation will become the property of the University unless otherwise requested by the Vendor, in writing, at the time of submission, and agreed to, in writing, by the University.

Upon request, VENDOR must agree to provide a minimum of three (3) qualified references. Requests for references will come from Kimberly Tomaszewski, Buyer, and will be treated as confidential and not added to the publicly permanent RFP file.

References are to be from organizations that have successfully utilized the products and services. The references supplied should include the name and address of the organization, and the contact name(s), titles, e-mail, and the telephone numbers.

Failure to agree to this will result in disqualification of your bid

Vendor selected shall have an excellent track record for providing services for the size and scope of our project as outlined and shall provide WAYNE STATE UNIVERSITY with a top priority commitment. Quotations are to remain in effect a minimum of 120 days from the date of submission. A statement to this effect should be contained in the VENDOR'S cover letter.

Quotation Evaluation

1. Quotations will be evaluated and award will be based on the VENDOR’S ability to offer the best value (technical quality, past performance and price), and on anticipated quality of service for the following principal elements:
• Ability to meet all mandatory requirements and specifications of this RFP;
• Cost of Services; Compensation and Fees; (Schedule A);
• Financial Strength of the VENDOR;
• Quotation Documentation / Presentation;
• VENDOR’S Experience (Exhibit 2);
• VENDOR Profiles/References; (Exhibit 2);
• VENDOR Service Plan; (Exhibit 3);

NOTE: Evaluation Criteria are in alphabetical order and are not stated in order of preference.

VENDOR quotations will be evaluated by an evaluation team consisting of members of the UNIVERSITY’S Purchasing and the School of Medicine. A preliminary screening will be used to identify competitive VENDORS who have met the mandatory requirements. Procurement & Strategic Sourcing may subsequently request selected VENDORS to make a presentation at a set time and date, to clarify information provided in the quotations. Final consideration, evaluation, and recommendation may be made at this point. However, the UNIVERSITY reserves the right to take additional time for reference review, site visits and/or quotation negotiations.

2. To qualify for evaluation, a VENDOR’S quotation must be responsive, must have been submitted on time and must materially satisfy all mandatory requirements identified throughout the RFP. To be considered responsive, a quotation must be reasonable and substantially conform in the judgment of the UNIVERSITY to all of the specified requirements in the RFP. Any deviation from requirements indicated herein must be stated in the quotation specifically under the category “Restricted Services”, and clearly identified as Exhibit 1. Otherwise it will be considered that quotations are in strict compliance with all requirements, and any successful VENDOR will be held responsible therefor.

3. If there are portions of any quotation the UNIVERSITY finds unacceptable or otherwise in need of clarification or revision, the UNIVERSITY reserves the right to negotiate with any or all VENDORS. Should the outcome of evaluations result in a recommendation, any resultant contract shall be subject to the approval of the UNIVERSITY’S General Counsel and be approved and signed by the appropriate UNIVERSITY representative.

The UNIVERSITY reserves the rights to accept, reject, modify, and/or negotiate any and all quotations received in conjunction with the Request for Quotation. It reserves the right to waive any defect or informality in the Quotations on the basis of what it considers to be in its best interests. Any quotation which the UNIVERSITY determines to be incomplete, conditional, obscure, or has irregularities of any kind, may be rejected.

This Request for Quotation (RFQ) in no manner obligates the UNIVERSITY to the eventual purchase of any products or services described, implied, or which may be proposed, until confirmed by written agreement, and may be terminated by the UNIVERSITY without penalty or obligation at any time prior to the signing of an Agreement or Purchase Order.

Vendors must refrain from giving any reference to this program, whether in the form of press releases, brochures, photographic coverage, or verbal announcements, without specific written approval from the University.

Quotations are subject to public review after the contracts have been awarded. VENDORS responding to this RFQ are cautioned not to include any proprietary information as part of their Quotation unless such proprietary information is carefully identified as such in writing, and the UNIVERSITY accepts, in writing, the information as proprietary.

You must email your responses to my attention at Ac9934. Remember, your bids must be in the format provided and be received in the Procurement & Strategic Sourcing by April 24, 2015 by 4:00 p.m. Please submit your bids in the format provided on the quote sheet. Include any supplemental information that will illustrate the features of the vehicles proposed.
If you have any questions regarding this bid, please contact Kimberly Tomaszewski by email at Ac9934 (copy to Robin Watkins, Email: Ag5343@wayne.edu)).

Sincerely,

Kimberly Tomaszewski, Buyer

Attachment: Insurance Requirements –

- Cost Schedule A
- Insurance Requirements Schedule B
- Bid Documents Schedule C
Schedule A – Cost Schedule

The University intends to purchase a portion of the Multidisciplinary Biomedical Research Building/IBio Equipment: Bid Package 11: 4’ Biological Safety Cabinets for delivery in the summer of 2015 and is seeking pricing to purchase additional 4’ Biological Safety Cabinets on a per unit basis prior to May 1, 2016.

Provide information and pricing to purchase and deliver 15 each, 4’ Biological Safety Cabinets units indicated as keynote BSC-42 and as specified including any/all incidentals, ready for Biological Safety Cabinets to be fully operational. Initial purchase will include 15 units, all to be delivered to the basement level of the Multidisciplinary Biomedical Research Building/IBio.

Equipment shall be delivered to the site, uncreated and fully assembled ready to use. Delivery will be coordinated with the WSU project manager for delivery during regular business hours. The project site includes an on grade loading dock and elevators accessing the basement level and permanent location of equipment as noted on the attached bid documents. Note any lift equipment and labor required to deliver Biological Safety Cabinets to their permanent destination must be included as a part of the bid response. All packaging is to be removed from the site by the supplier.

Form must be filled out complete.

Base Bid: Provide 4’ Biological Safety Cabinet.

Cost to provide, deliver and set up 15
4’ Biological Safety Cabinets complete. ____________________________ Total

Future Equipment:

Costs to provide one to four 4’ Biological Safety Cabinet, delivered and set up after base bid pricing, through May 1, 2016: ____________________________ Per Unit

Costs to provide five or more 4’ Biological Safety Cabinet, delivered and set up after base bid pricing, through May 1, 2016: ____________________________ Per Unit

Lead Time after shop Drawing Approval: ____________________________

Pricing must include all required taxes.

Provide manufacturers literature with response that clearly describes proposed equipment including physical dimensions with your bid.
WSU – Multidisciplinary Biomedical Research Building/IBio  
RFQ – Bid Pack 11: Biological Safety Cabinets  
Schedules  
April 16, 2015

Schedule A Continued:

Email your responses to Robin Watkins at ag5343@wayne.edu (copy to Paula Reyes), Email: (Second Buyer E-Mail: bb2709@wayne.edu). Remember, your bids must be in the format provided and be received in the Procurement & Strategic Sourcing by April 24, 2015 by 4:00 p.m.

Company Name: _______________________________________________________

Address: ________________________________

Telephone: (_________________)_______________________________________

Fax: (________________)_______________________________________________

Email address: ________________________________________________________

Submitted by: ________________________________________________________

Signature: ____________________________________________________________

________________________________________    ___________________

(Title)                                                       (Date)

Email address: ________________________________________________________

Submitted by: ________________________________________________________

Signature: ____________________________________________________________

________________________________________    ___________________

(Title)                                                       (Date)
Schedule B - INSURANCE REQUIREMENTS *(Rev 2-2015)*

_________________________________________, at its sole expense, shall cause to be issued and maintained in full effect for the term of this agreement, insurance as set forth hereunder:

<table>
<thead>
<tr>
<th>Type of Insurance</th>
<th>Minimum Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.  Commercial General Liability (CGL)</td>
<td>$1,000,000 combined single limit</td>
</tr>
<tr>
<td>CGL insurance should be written on ISO</td>
<td>$2,000,000 annual aggregate</td>
</tr>
<tr>
<td>form CG 00 01 (or equivalent substitute)</td>
<td>Umbrella Liability per occurrence and in the annual</td>
</tr>
<tr>
<td>Contracts valued at $100,000 per year or</td>
<td>aggregate of $5,000,000.</td>
</tr>
<tr>
<td>more</td>
<td></td>
</tr>
<tr>
<td>2.  Commercial Automobile Liability</td>
<td>$1,000,000 combined single limit per accident</td>
</tr>
<tr>
<td>(including hired and non-owned vehicles)</td>
<td>for bodily injury and property damage, without annual</td>
</tr>
<tr>
<td></td>
<td>aggregate.</td>
</tr>
<tr>
<td>3.  Workers' Compensation</td>
<td>Required by the State of Michigan and Employer's Liability in the amount of $500,000 per accident for bodily injury or disease.</td>
</tr>
<tr>
<td>(Employers' Liability)</td>
<td></td>
</tr>
</tbody>
</table>

**Maximum Acceptable Deductibles**

<table>
<thead>
<tr>
<th>Type of Insurance</th>
<th>Deductible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial General Liability</td>
<td>$5,000</td>
</tr>
<tr>
<td>Commercial Automobile Liability</td>
<td>0</td>
</tr>
<tr>
<td>Workers' Compensation</td>
<td>0</td>
</tr>
<tr>
<td>Property - All Risk</td>
<td>$1,000</td>
</tr>
</tbody>
</table>

**Coverage**

1. All liability policies must be written on an occurrence form of coverage.
2. Commercial General Liability (CGL) includes, but is not limited to: consumption or use of products, existence of equipment or machines on location, and contractual obligations to customers.
3. The Board of Governors of Wayne State University shall be named as an additional insured, but only with respect to accidents arising out of said contract.
4. The additional insured provision shall contain a cross liability clause as follows: “The insurance afforded applies separately to each insured against whose claim is made or suit is brought, except with respects to the limits of the company’s liability.”
5. The insurance company for each line of insurance coverage will be reviewed and checked per the A.M. Best's Key Rating Guide. **A rating of not less than “A-“ is required**
Certificates of Insurance

1. Certificates of Insurance naming Wayne State University / Office of Risk Management as the certificate holder and stating the minimum required coverage must be forwarded to the Office of Risk Management to be verified and authenticated with the agent and/or insurance company.

2. Certificates shall contain a statement from the insurer that, for this contract, the care, custody or control exclusion is waived.

3. Certificates shall be issued on an ACORD form or one containing the equivalent wording, and require giving WSU a thirty (30) day written notice of cancellation or material change prior to the normal expiration of coverage.

4. Revised certificates must be forwarded to the Office of Risk Management thirty (30) days prior to the expiration of any insurance coverage listed on the original certificate, as follows:

   Wayne State University
   Office of Risk Management
   5700 Cass Avenue, Suite 4622 AAB
   Detroit, MI 48202

Specific Requirements- Individual contracts may require coverage in addition to the minimum general requirement such as, business interruption, higher limits and or blanket fidelity insurance.

Exception to the insurance requirements is to be approved, in writing, by the Office of Risk Management. Exceptions are determined by the type and nature of the contract and the individual contractor.
Schedule C – Bid Documents

The following drawings, specifications and reference drawings are a part of Bid Pack 11: 4’ Biological Safety Cabinets bid documents:

Specifications Issued for Reference:
  Specification Section 116110 – Biological Safety Cabinets

Drawings Sheets issued as a part of Bid Pack 11:
  Sheet AP-00e – Partial Basement Floor Plan – East – B12
  Sheet AQ-0Be - Basement Floor Equipment Plan – Area E - B12
  Sheet A5-87 – Keynote Schedule – B17
  Sheet AQ-0Bf – Basement Floor Equipment Plan – Area F - B12
  Sheet EQ-0Bf – Basement floor Electrical Equip plan – Area F – B17
  Sheet EQ-0Be – Basement Floor Electrical Equip Plan – Area E – B17

• Requirements Schedule B
SECTION 116110 - BIOLOGICAL SAFETY CABINETS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division -1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Work includes providing laboratory biological safety cabinets (BSC-xx) complete with factory installed wired and piped service fixtures, as indicated on Drawings and coordinated with laboratory casework specified in Division 12.

B. Divisions 22, 23, and 26 Sections for connecting service utilities at indicated point.

C. General Commissioning Requirements.

1.3 PERFORMANCE REQUIREMENTS

A. Provide biological safety cabinets that provide personal, product, environmental and cross contamination protection as specified in NSF International Standard #49.

B. Provide biological safety cabinets appropriate for the class and type listed here and on the drawings.

1. Class II, Type A, Biological Safety Cabinets:
   a. Suitable for routine microbiological research in the absence of volatile chemicals and volatile radionuclides.
   b. HEPA filtered exhaust recirculated 100% back into the room.
   c. HEPA filtered downflow air within cabinet.
   d. Minimum average face velocity of 75 FPM.

1.4 SUBMITTALS

A. Product Data: For each type of biological safety cabinet specified. Submit manufacturer's data for each cabinet. Include dimensions, construction details, utility and service requirements and locations.

B. Shop Drawings: For biological safety cabinets. Include plans, elevations, sections, and details.
Bid Package 11

1. Indicate locations and types of service fittings, together with associated service connections required.
2. Indicate plumbing connections, duct connections, electrical connections, and locations of access panels.
3. Include roughing-in information for mechanical, plumbing, and electrical connections.
4. Show adjacent walls, doors, windows, other building components, laboratory casework, and other laboratory equipment. Indicate clearances from above items.
5. Coordinate shop drawings with other work involved.

C. Operation and Maintenance Manuals: Submit bound manual with operating and maintenance instructions, parts listing, recommended parts inventory listing, purchase source listing for major and critical components, emergency instructions, and similar information.

D. Professional quality video - minimum 15 minutes in length on proper hood usage.

E. Test Reports: Submit test reports on each size and type of biological safety cabinet verifying conformance to test performances specified. Test report must accompany each hood as part of installation and usage package. Submit independent test reports as required by specification.

   1. Provide biological safety cabinet face areas and volume of exhaust air at indicated face velocity, at sash stop position, and maximum sash opening.

1.5 QUALITY ASSURANCE

A. Manufacturer shall identify and designate a full time factory representative for on-site supervision and coordination during the installation of biological safety cabinets.

B. Biological safety cabinet construction and performance including all electrical and mechanical components shall be designed in accordance with all applicable IBC, OSHA, NFPA, NEC, and State of Michigan Plumbing Codes.


   1. Subject to compliance with requirements, permanently mark safety glass with certification label of SGCC or another certification agency acceptable to authorities having jurisdiction.

1.6 PRODUCT HANDLING

A. Coordinate delivery of biological safety cabinets with delivery of other laboratory casework components.

B. Schedule delivery of equipment so that spaces are sufficiently complete that equipment can be installed immediately following delivery.
C. Protect finished surfaces from soiling and damage during handling and installation. Keep covered with polyethylene film or other protective covering.

1.7 COORDINATION

A. Coordinate installation of biological safety cabinets with laboratory casework, exhaust duct, and plumbing and electrical work.

B. Do not deliver or install equipment until the following conditions have been met:
   1. Windows and doors are installed and the building is secure and weather tight.
   2. Ceiling, overhead ductwork and lighting are installed.
   3. All painting is completed and finished flooring is installed.

1.8 WARRANTY

A. Warranty biological safety cabinets to be free from defective materials, poor performance and workmanship for three years.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Subject to compliance with requirements, provide fume hoods from one of the following:
   1. NuAire.
   2. Thermo Scientific.
   3. The Baker Co.

2.2 BIOLOGICAL SAFETY CABINET COMPONENTS

A. Manufacturer shall provide a certified copy of the personal, product and cross-contamination (biological) tests, equivalent to or more demanding than as specified in NSF International Standard #49, performed on the unit selected.

B. Cabinet shall have Momentum Air Curtain downflow velocity profile.

C. High velocity return air slots shall be located at each end of the front access opening.

D. The sliding viewscreen shall be slanted at an angle of 10 degrees from vertical, capable of moving to a fully closed position during shutdown periods.
E. Viewscreen shall be constructed of ¼” safety plate glass, with a minimum opening of 18” for equipment loading.

F. All biologically contaminated ducts, plenums and work area side walls shall be permanent metal construction and maintained under negative pressure or enclosed within a negative pressure zone.

G. Cabinet shall be capable of automatically handling a 60% minimum increase in filter loading without reducing total air delivery by more than 10%.

H. Interior work area shall be 27-1/4” high.

I. Cabinet shall be designed to provide uniform air flow to the supply filter.

J. Supply and exhaust HEPA filters shall be front-loading.

K. A plenum assembly shall be provided to allow the supply filter to be directly clamped to the plenum against a closed-cell neoprene gasket.

L. Complete unit shall be listed by Underwriters Laboratory (UL) for electrical, fire and personal safety.

M. Sliding sash high velocity air return slots shall be provided along the entire top edge of the work area to prevent migration of contamination behind the sliding glass viewscreen.

N. Audible and visual alarm system shall be provided to indicate low exhaust airflow, and shall be interlocked with unit supply blower to prevent pressurization of the work zone.

O. Cabinet shall have a microprocessor-based membrane control panel mounted on the front of the cabinet facing down toward the user when sitting at the unit.

P. Unit shall have an audible alarm and a flashing LED to indicate when the sliding viewscreen is in an unsafe position. An alarm mute switch shall be provided on the front-mounted cabinet control panel to allow the operator to mute the alarm tone for brief adjustments. The alarm shall automatically reset after five minutes if the viewscreen remains in an unsafe position.

Q. Cabinet exterior construction: Seal panels of 16 gauge cold-rolled steel and dress panels of 18 gauge cold-rolled steel, baked enamel finish White.

R. Cabinet interior (work area) construction: one-piece 16 gauge, Type 304 stainless steel, with a smooth, 7/16” radius between rear and side walls, and easily cleanable, radiused corners on the work surface tray.

S. Work area side walls and rear wall to be one-piece construction. A straight back wall shall be provided to maximize work area and easily accommodate laboratory equipment.

T. Work area shall be provided with two GFI protected duplex outlets with drip-proof covers and circuit breakers.
U. Lower front work area airfoil shall be provided to improve access opening containment capability.

V. Cabinet shall have a unitized drain pan with 7/16” radius on all sides and a fully-removable work surface and work surface supports to facilitate cleaning.

W. Stainless steel air diffuser filter protector shall be provided in work area.

X. Unit must be listed by NSF International as meeting Standard #49.

Y. Each unit, before shipping, shall have a complete physical test to assure cabinet meets Class II requirements. A copy of this test shall be provided with the unit.

Z. Speed controller shall automatically compensate for line voltage changes to maintain constant voltage to motor while allowing for manual adjustments to accommodate filter loading.

AA. A single power cord and plug shall be provided for electrical power source.

BB. One petcock shall be provided on the right wall inside the cabinet. Three additional capped penetrations shall be provided for addition of future petcocks, two on the left wall and one on the right wall.

CC. All external plumbing connections to the petcocks shall be plumb at the top of unit.

DD. Unit shall have standard HEPA filters with an efficiency of 99.99% when filtering particles of 0.3-micron size.

EE. Unit shall have a washable, re-useable, intake prefilter.

FF. Unit shall have 120 volt, high power factor, >10% THD, fused sound rating Class A, program start electronic ballasts for UV and fluorescent lighting – 100 footcandles shall be provided at work surface. Match the ballast to lamp. Refer to Division 16 “Lighting Systems” for approved manufacturers.

GG. Unit shall have a telescoping stand that allows the work surface height to be set at either 30” or 36”.

HH. Unit shall have a removable armrest across the cabinet front.

II. Cabinets shall be fitted with the following accessories:

1. UV Germicidal lamp.
2. Plumb to top.
3. Armrest.

JJ. Lamps shall be germicidal lamp Philips TUV30T8. Lamp length shall be maximum size which will fit into cabinet.
PART 3 - EXECUTION

3.1 INSTALLATION

A. General: Install biological safety cabinets according to Shop Drawings and manufacturer's written instructions. Install plumb, level, and aligned. Securely attach access panels but provide for easy removal and secure reattachment.

B. Comply with requirements of Divisions 11, 22, 23, and 26 Sections for factory installation of laboratory gas service fittings, piping, electrical devices, and wiring. Install according to Shop Drawings and manufacturer's written instructions.

3.2 FIELD QUALITY CONTROL

A. Field Test: Upon completed installation, provide independent certification tests on all cabinets. Field test shall be compared to results of factory controlled tests which accompany the operators manual for the cabinet supplied.

B. Field adjust cabinets in conjunction with a tuned building exhaust and HVAC system and make corrections until tested cabinets perform as specified.

C. After making corrections, re-test cabinets.

3.3 ADJUSTING AND CLEANING

A. Adjust moving parts for smooth, near-silent, accurate sash operation with one hand. Adjust sashes for uniform contact of rubber bumpers. Verify that counterbalances operate without interference.

B. Repair or remove and replace defective work as directed on completion of installation.

C. Clean finished surfaces, including both sides of glass; touch up as required; and remove or refinish damaged or soiled areas to match original factory finish, as approved by the COTR.

END OF SECTION
MH
1. PROVIDE STONE SEATWALL IN LIEU OF CONCRETE CURB AT NORTHEAST AND
   ACCESSORIES REQ’MTS AND LOCATIONS - SEE DWG. AG-31
2. FOR TYPICAL HOUSEKEEPING CLOSETS ACCESSORIES
   BEAM W/ COPED CMU AT HEAD CONDITION. REFER TO AP-01E, AP-02E AND AP-
3. NOT USED.
4. PROVIDE 4" STRAIGHT RUBBER BASE IN LIEU OF 4" PROFILE RUBBER BASE
5. ALL GYPSUM PARTITION TYPES (           ) ARE “A” TYPICALLY
   MULTI-DISCIPLINARY WALL (MIN.)
6. RESEARCH BUILDING
7. PROVIDE SCREWS & NAILS WHEREVER REQUIRED TO ATTACH MATERIALS
   TO STRUCTURE.
8. COORDINATE DIMENSIONS W/ ASTERISK (IE - *X' - X")  W/
9. M. COORDINATE DIMENSIONS W/ CARD READER
10. TYPICALLY INSTALL SOAP DISPENSERS & PAPER TOWEL
11. FRAMING AND MILLWORK INTERSECTIONS TO BE SATISFACTORY
12. ANIMAL SURGERY
13. STAIR 2
14. PROVIDE BULLNOSE CORNERS ON ALL CMU WALLS - TYPICAL
15. COORDINATE ALL FLOOR OPENING DIMENSIONS & CLEARANCES FOR DUCTWORK W/ MECHANICAL CONTRACTOR - TYPICAL
16. REFER TO AQ SHEETS FOR LABORATORY INFORMATION.
17. REFER TO AI-XX SHEETS FOR FINISH & SIGNAGE INFORMATION
18. SHEET NOTES
19. REFER TO SHEET A4-11 FOR ACCESSORY LEGEND
20. REFER TO SHEET A5-74 FOR ALL GLASS SYSTEM DETAILS
21. PROJECT NO.
22. DRAWN
23. SHEET NO.