PART 0 A/E INSTRUCTIONS

0.01 GENERAL DESIGN REQUIREMENTS

A. Architect shall coordinate with the DPS Project Manager the specific types and quantities of equipment required and differentiate FF&E items from those provided in this section.

B. Architect shall coordinate requirements and locations for electrical power for all laboratory equipment.

C. Architect shall coordinate special HVAC requirements for Laboratory equipment.

1. Coordinate vents with fire-rated shaft constuction where required by Codes
2. Coordinate make-up air to maintain air balance when hoods are running or stopped

D. Architect shall coordinate special services, such as gas and water and compressed air.

E. Architect shall coordinate special plumbing requirements, such as deep sinks, and lab faucets.

F. Architect shall coordinate heights, widths, and weights of bench mounted equipment with that of base cabinet construction- including anchoring to walls.

G. Architect shall coordinate proper venting of flammable material storage. Flammable and other hazardous materials storage cabinets shall not be vented unless required by Code Authorities.

H. Coordinate with Denver Fire Department for when cabinets are required based on quantities of chemicals. DPS Project Manger will provide A/E with expected quantities of chemicals for new facilities.

I. Coordinate acid waste piping requirements with plumbing.

J. Fume Hoods

1. Provide intergral base cabinet or non-combustable countertop for all hoods

K. Chemical Storage Cabinets:

1. Acid and Corrosive cabinets may be constructed of materials other than steel provided they are UL certified for intended use.
2. Flammable storage cabinets shall be steel.

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Lab Equipment

1. Fume Hoods
2. Bio-Safety cabinets- HEPA Filter with integral base
   - a. Class1
   - b. Class 2
   - a. Vertical sash design
   - b. Pre-wired and plumbed for gas, hot/cold water, compressed air, electrical outlets and vapor sealed light fixture and switch
   - c. Back-flow prevention device shall be installed on the outside of the cabinet
3. Ice Maker
4. Lab Glassware Washers
5. Chemical Storage Cabinet
   - a) Acid Storage Cabinets
   - b) Base Storage Cabinets
   - c) Flammable Liquids Storage Cabinets.

1.02 QUALITY ASSURANCE

A. All powered equipment shall be UL rated.

PART 2 PRODUCTS

2.01 MATERIALS

A. Fume Hoods
   1. Vertical sash design
   2. Pre-wired and plumbed for gas, hot/cold water, compressed air, electrical outlets and vapor sealed light fixture and switch
   3. Back-flow prevention device shall be installed on the outside of the cabinet
   4. Integral ventilated base cabinet
   5. All power outlets and switches shall be located on the exterior face of the hood (not internal)
   6. Internal hood lights shall be fitted with vapor seal lenses

B. Bio-Safety Cabinets
   1. Vertical sash design
   2. Pre-wired and plumbed for gas, hot/cold water, compressed air, electrical outlets and vapor sealed light fixture and switch
   3. Back-flow prevention device shall be installed on the outside of the cabinet
   4. Integral ventilated base cabinet
   5. All power outlets and switches shall be located on the exterior face of the hood (not internal)
   6. Internal hood lights shall be fitted with vapor seal lenses

C. Ice Maker

D. Lab Glassware Washers

E. Chemical Storage Cabinets
   1. All steel construction with integral reservoir base
      a) Chemical resistant, baked-on enamel coating
      b) Interior polypropylene lining
   2. Locking doors
   3. Chemical spill reservoir
   4. Acid resistant shelving
   5. Self-closing doors
   6. OSHA and NFPA-30 approved
   7. Separate poly cube to be provided for nitric acid storage

PART 3 EXECUTION No standards

END OF SECTION 11600