CHAPTER 34
DESIGN REQUIREMENTS BY SPACE TYPE / USE

3401 Office Standards:
   A. Sizes: Standard office sizes
   B. Shape: Rectangular. No acute angle corners. Other shapes require approval by the University.

3402 Custodial Storage / Equipment Rooms and Janitor Closets
   A. The size, location and layout of custodial facilities are dependent upon the size of the building, its use and flooring materials. Most buildings require a central equipment / storage room and a custodial closet on each floor. Most buildings require use of floor machines; janitor closets and equipment storage must be sized accordingly. The Consultant and Project Manager shall confer with CSU Custodial Services during schematic design to establish these parameters.
   B. Passageways, mechanical equipment rooms, pipe chases shall not serve as custodial closets, nor shall elevator controls, electrical panels, telephone equipment, roof access hatches, etc, be located in custodial closets.

C. Janitor Closets
   1. Janitor closets must be sized and designed to accommodate work activities, custodial carts, supplies and portable equipment.
   2. Locate janitor closets not more than 150 feet to areas serviced.
   3. Doors should be minimum 36" wide and swing out.
   4. Floor sinks with splash protection on walls above to 48" AFF. Recessed, curbless design is preferred for rooms servicing floor machines.
   5. Faucet with hose thread swing spout and vacuum breaker.
   6. Swing rod rack over sink for hanging wet rags, pads and mop heads.
   7. Adjustable shelves on wall-mounted standards or wire rack shelf units on locking wheels.
   8. Provide elevation drawings illustrating adequate space and wall blocking for dispensing systems over sinks, wall brackets for backpack vacuum systems, extension cord storage, brooms, mops and other hand equipment. Provide broom and mop racks with positive locking holders.
   9. Small whiteboard and tackboard
   11. Ventilation and separation from other building spaces.
   12. Finished floors, either sealed concrete or VCT. Finished walls and ceilings.
   13. Floor drain with waterless trap guard.
   14. Ventilation with supply and exhaust air.

D. Central Custodial Storage / Equipment Room
   1. Every building should have assigned central storage that is capable of handling bulk supplies, storing equipment, etc. Actual space needed will vary based on the equipment
needs for the building. Contact Custodial Services for determination of equipment required, and assistance in determining proper room size.

2. Equipment rooms for floor machines must be sized to accommodate one or more machines according to the floor materials in the building. Avoid narrow widths; most rooms will store more than one machine or cart and should be sized to allow one to bypass the other.

3. Doors should be minimum 36” wide and swing out.

4. Heavy-duty adjustable shelves should be mounted along one entire wall. Provide one 3-foot wide rolling wire rack shelf unit at the end wall.

5. Provide elevation drawings illustrating adequate space and wall blocking for dispensing systems over sinks, wall brackets for backpack vacuum systems, extension cord storage, brooms, mops and other hand equipment. Provide broom and mop racks with positive locking holders.

6. Whiteboard and tackboard

7. Eyebolt anchored into solid blocking for securing equipment with a cable and lock.

8. Ventilation with supply and exhaust air.

9. Provide power outlets for charging battery-powered equipment, fluorescent light fixtures with lenses, telephone and data outlets.

E. Building Maintenance and Custodial Space Report (submit in Design Analysis Report)

DATE __________
PROJECT NAME ________________________________________
UNIVERSITY PROJECT NO. __________
PREPARED BY _________________________________________

A. Gross square feet in overall project. _______ Sq. Ft.

B. Net square feet in overall project. _______ Sq. Ft.

C. Number of existing dedicated spaces.
   Building maintenance _______
   Custodial Closets _______

D. Number of new-dedicated spaces.
   Building maintenance _______
   Custodial Closets _______

E. Net square feet of existing dedicated spaces.
   Building maintenance _______ Sq. Ft.
   Custodial closets _______ Sq. Ft.

F. Net square feet of new-dedicated spaces.
   Building maintenance _______ Sq. Ft.
   Custodial closets _______ Sq. Ft.

G. Change in net square feet of existing plus new dedicated spaces (E + F).
   Building maintenance _______ Sq. Ft.
   Custodial closets _______ Sq. Ft.
3403 **Roofs**
   A. All roofs shall have permanent and ample means of access for service. Comply with OSHA requirements for ladders and roof hatches.

3404 **Grounds Services Closet**
   A. Where appropriate, provide a closet of at least 80 square feet with exterior entrance for Facilities Management Grounds Services. Provide grounded duplex outlet, power for sprinkler controller and telecom / data outlet.

3405 **Vending Machine Area**
   A. Provide an area near the center of the building traffic pattern for vending machines, taking into consideration the safety and aesthetic values of the building. A separate room is not required, but utilities for the machines shall be provided, including provisions for data network connection. A recessed alcove can be used to avoid conflict with circulation.

   B. Provide adequate space and show waste and recycling receptacles on the floor plan. Contact Building Services Recycling for information regarding standard CSU receptacles.

3406 **Food Preparation / Coffee Bar / Serving Areas**

   B. Coordinate with CSU Environmental Health Services Public Health Officer for design review and inspection.

3407 **Overstock Storage**
   A. When overstock is specified in any specification Division, the Consultant shall incorporate a specific overstock storage space into the project design. Overstock shall not be stored in chases or mechanical / electrical / elevator rooms. Verify compliance with relevant building and fire code. Provide calculations demonstrating that the quantity and volume of materials will fit neatly in the overstock storage space with adequate room for safe access. Specify freestanding storage shelving capable of accommodating the volume and weight of overstock. Provide lighting.

   B. See the relevant Division in Part III of the Standards and verify with Project Manager what overstock should be provided or omitted from the project. Typical overstock materials include:

   1. Paint - verify compliance with fire safety code
   2. Ceramic Tile
   3. Resilient Tile and Base
   4. Carpet Tile and roll remnants
   5. Ceiling Tile
   6. HVAC filters
   7. Lamps
   8. Custom light fixture parts
   9. Custom signage parts
   10. Fixed furniture parts and fabric

3408 **Child Care and Pre-school**: Conform to regulations of Colorado Department of Human Services, Division of Child Care.

3409 **Swimming Pools**
   A. Conform to Colorado Department of Public Health and Environment (CDPHE) Water Quality Control Division Regulations Pertaining to Swimming Pools and Mineral Baths (Chlorine).
B. Conform to Uniform Swimming Pool, Spa and Hot Tub code.

C. Plans for installations, renovations or remodeling shall be approved by Environmental Health Services and the CDPHE through the University Representative.

3410 Chemical Laboratories: Conform to NFPA-45, OSHA 29 CFR 1910.1450, applicable OSHA standards if an OSHA regulated substance is involved and the University Biosafety Handbook.

3411 Chemical Storage Rooms
   A. Conform to OSHA 29 CFR 1910.1450, NFPA 1 and NFPA-30
   B. Rooms shall be suitable to type of materials stored (NFPA-45[1991]) in regards to specific temperature, absence of light, humidity or avoidance of any moisture, explosive conditions, ventilation, blast walls, etc.

3412 Pesticide Storage: Conform to NFPA 400.

3413 Animal Quarters
   A. Conform to University Biosafety Handbook available from the University Representative.
   B. Conform to USDA animal care.
   C. Shall be reviewed by Director of Lab Animal Resources through the University Representative.

3414 Biohazard Locations and Containment Facilities: Conform to the University Biosafety Handbook available through the University Representative


3416 Welding Shops: Conform to NFPA-51, 51A and 51B, and OSHA 29 CFR 1910 subpart Q.

3417 Battery Rooms: Conform to NFPA 1, OSHA 29 CFR 1910.178 (g), 29CFR1926.441 and NEC.


3420 Semiconductor Fabrication Facilities: Conform to NFPA 318.

END OF CHAPTER 34