DESERT COMMUNITY COLLEGE DISTRICT
ENGINEERING SYSTEMS GUIDELINES
3-28-2011

The following sets out the preferred standards for engineering systems for new and renovated buildings on all campuses in the Desert Community College District. These standards may be revised over time, to accommodate lessons learned and current product availability. All standards should be reviewed and validated with Facilities Management leadership and staff for each project.   These standards are intended to supplement the COD Design Standards, and where conflicts occur they are to be resolved by discussion with District Staff.

Architectural

1. Paint - The number of paint colors per building should be reasonable. Attic stock should be new, un-opened material. One gallon of paint per color.

2. Exterior of buildings should have a wainscot reglet at 40" above finished grade, which should be finished with graffiti resistant coating on whatever the exterior finish of the building is in order to provide protection from students' shoe marks on the exterior walls.

3. Flooring – Use polished concrete for primary traffic areas, storage rooms, and closets. Use carpet for offices and classrooms.

4. Carpet shall be Tandus (Collins and Aikman) via a piggy-back contract to the LACCD contract. It shall be roll goods specified as owner provided/contractor installed.

5. Ceiling tiles – Use 2x4 ceiling tiles where occurs.

6. Restroom mirrors – Due to heavy graffiti damage caused to mirrors in new buildings, the District has determined that there shall be no mirrors installed in the restrooms.

7. Restroom hand dryers – need to dry hands quickly (<10sec) are preferred (ie: Xcellerator).

8. Restroom soap dispensers and tissue dispensers will be provided and installed by the District. Do not include in the contract. However DO obtain dimensions of the units from the District and assure that architect provides adequate clearance in enclosures to accommodate the units per ADA/code.

9. Graffiti/scratch resistant toilet partitions with continuous angle connection to wall.

10. Restroom Lavatory - One piece counter and lavatory or under-counter mounted lavatories in solid surface counters are preferred.

11. Door access hardware - Use the Schlage Locknetics SMS system. The existing system is a wireless system serving every exterior door. However, all future construction should use a compatible hard-wired system.

12. Service closet hardware - Electrical rooms, MDF, IDF's, storage rooms, and restrooms shall utilize the Schlage Locknetics system. Pairs of doors will have wall reader to accommodate the system.

Mechanical - FACILITIES DEPARTMENT MUST REVIEW THE DESIGN AND SPECS PRIOR TO CD'S

13. The Mechanical Room drawings for any facility must be reviewed for the feasibility of easily maintaining the equipment and changing filters. All equipment requires adequate clearance and adequate lighting. Manually operated units would be second choice.

14. The Building Management System (BMS) shall utilize LONWORKS technology at the controller level and Distech EC-NET AX (Niagra Framework) technology at the network device level. Acceptable manufacturers for the equipment should be reviewed with M&O Department.

15. COD requires a list of all points being controlled or monitored (specify which) by the BMS system.

16. The EMS server currently exists in the M&O office on the College of the Desert Campus. It utilizes Tridium software. Verify that equipment specified and provided communicates with it.

17. COD requires that ceiling grid be tagged with the location and tag of the each above ceiling VAV box, valve and control in order to aide in maintenance.

Plumbing – FACILITIES DEPARTMENT MUST REVIEW THE DESIGN AND SPECS PRIOR TO CD'S

18. COD prefers that all flush valves be manual or hard-wired automatic with clear access to wiring boxes.

19. Low flow 1/8 pint rather than waterless urinals are preferred.

20. Push button water valves at lavatories are preferred. Automatic sensor is acceptable if hard wired.

21. Trap primers must be adjustable to avoid back-up due to hard water deposits. They must also be easily accessible by maintenance staff for adjustment and service.

22. The regional water supply has a very high mineral content, causing deposits in fixtures and appliances. Consider how to accommodate this problem in any system.

Electrical - FACILITIES DEPARTMENT MUST REVIEW THE DESIGN AND SPECS PRIOR TO CD'S

23. Lighting over toilets should be serviceable, that is, recessed linear fluorescents with lens, not cove lighting where bulb is inaccessible for service. Preferably not directly over plumbing fixtures were access requires a ladder set.

24. A limited number of types of fixtures and lamps should be used in the lighting in each building: T-8's, T-5's, and 26 watt compact fluorescent are preferred.

25. It is requested that the number of lamps be rationalized so that a large number of different lamp types do not need to be stored. For example, 3' T8 lamps are not utilized, but rather 4' lamps, so only 4'lamps need to be stored on site for maintenance.

26. Occupancy sensors should report back to Facilities via the BMS and should provide control of the HVAC system operation.

27. Exterior architectural and security lighting utilizing high pressure sodium is the preferred.   Use of LED lighting will be considered for parking lot lighting.

28. Exterior architectural and security lighting should have associated motion sensors that raise the level of lighting from one level to a higher level when activated.

29. No in-ground or low-to-the-ground light fixtures less than 36 inches in height are acceptable due to the heavy water deposits that very quickly destroy the fixtures.

30. Arcade lighting at the arcades of any of the Palm Desert campus buildings must be standardized to prior renovated buildings.

31. Recessed exterior down-lights with lenses collect heavy insect infestation. Exterior down-lights with no lenses or fixtures with a very high IP rating to alleviate the problem are preferred.

Fire Alarm - FACILITIES DEPARTMENT MUST REVIEW THE DESIGN AND SPECS PRIOR TO CD'S

32. The Fire Protection System now housed in the Hilb Building and monitored at the M&O office will be moved to the new CRB Data Center. A performance specification from COD for Fire Alarm and Security systems will be required to accommodate the design for the campus-wide system. The existing system should be specified for the Palm Desert campus, but other campuses may use any approved compatible system.