CODE REVIEW SYSTEM/FORMAT FOR UCB PROJECTS

PART 1 - CODE REVIEW OBJECTIVES:

1.1 To enhance the level of compliance with codes.

1.2 To provide clear direction for the design team throughout the design process.

1.3 To use in answering questions raised during the construction phase.

1.4 A secondary objective of the code review is to provide adequate information, on file, for future reference, e.g., during future alterations and renovations.

PART 2 - PARTIES WHO SHOULD DEVELOP THE CODE REVIEW:

2.1 Preparation of the code review shall remain the responsibility of the design team, normally led by the lead consultant.

PART 3 - TIMING OF THE CODE REVIEW:

3.1 It is recommended that a preliminary code review be submitted with the program plan or conceptual design. The code edition/version is to be identified and listed. The code review shall be updated and submitted at the schematic design (SD), design development (DD) and contract documents (CD) stages of the project.

PART 4 - EVALUATION OF THE CODE REVIEW:

4.1 Fire, life, and health and safety code issues, see items 7.1 through 7.9 below, shall be evaluated by FLS. Other code issues shall be evaluated by the designated AHJ.

PART 5 - WHERE TO PLACE THE CODE REVIEW:

5.1 The code review shall be located on the front sheet(s) of the architectural drawings. This will help facilitate filing and ease future reference.

PART 6 - CODE REVIEW GUIDELINE:

6.1 The form in Part 7 may be copied and is to be used by the design team as a checklist to identify applicable items, and as a list of headings for the code review report.

The box next to each item is to be used when using this format as a checklist. If the item does not apply, the box will be marked with “N” for "No"; otherwise, "Y" for "Yes."

6.2 The design team shall contact the University to determine which of the following sections (6.2.1 or 6.2.2) apply to a given project prior to schematic design phase.
The level of detail of the code review depends on the size of the project.

6.2.1 For small (less than $50,000 construction budget) remodeling projects, only applicable items shall be included. Items that do not apply need not be listed.

6.2.2 For all other construction projects, all items are to be included. Items that do not apply shall be listed and identified with “N/A”.

6.3 The code names and paragraph numbers and exceptions shall be identified for each item indicated in the code review report.

PART 7 - CODE REVIEW CHECKLIST:

See Part 6 for user instructions.

The code review should include the following sections. In each section, the applicable code paragraph numbers and exceptions should be identified and listed. Please note that all of the following items do not necessarily apply to all projects. The code review needs to address two sets of issues:

a. Code issues that affect the project area: for example, change in use/occupancy, exit doors, fire rating of partitions, and classification of interior finish.

b. Code issues outside the project area, only to the extent affected by changes in the project area. For example, if the occupant load of this floor has increased, the code review is to identify the required width of exits and verify that the existing stairs provide adequate width for the new occupant load.

7.1 The Building
[ ] 7.1.1 Building height and area
[ ] 7.1.2 Building occupancy and use groups
[ ] 7.1.3 Building location with respect to adjacent properties and roads

7.2 Building Fire Resistance
[ ] 7.2.1 Type of construction
[ ] 7.2.2 Fire resistance of structural members (include sprinklered building exceptions)
[ ] 7.2.3 Fire resistance of all exit routes including stairs, corridors, and ramps
[ ] 7.2.4 Fire resistance of vertical openings and shafts
[ ] 7.2.5 Fire resistance of special occupancy enclosures such as storage rooms and hazardous areas
[ ] 7.2.6 Fire resistance of other building elements such as partitions, doors, and exterior wall openings.
[ ] 7.2.7 Sealing of penetrations.

7.3 Ignition Prevention
7.3.1 Identify potential ignition sources and related code requirements
7.3.2 Identify hazardous locations and the required classifications

7.4 Fuel Control
7.4.1 List amount and type of combustible material, e.g., fire retardant treated wood, that may be used. (See also 7.9, Special Hazards.)
7.4.2 Identify and list interior finish classifications in exit paths, places of assembly, and all other areas.
7.4.3 Identify allowable types of furniture.

7.5 Means of Egress
7.5.1 Determine and list occupant load factors and occupant loads for each floor and for each major space within a floor, e.g., assembly areas.
7.5.2 Determine the minimum number of exits required for each floor and for each major room, e.g., assembly areas and labs, within a floor.
7.5.3 Determine the minimum width of exits required for each floor and for each major room, e.g., assembly areas within a floor, ADA requirements.
7.5.4 Determine the maximum allowable travel distance.
7.5.5 Determine the maximum allowable dead-end.
7.5.6 Determine the maximum common path of travel allowed.
7.5.7 Determine the swing direction requirements.
7.5.8 Determine the place of refuge requirements; number, size, and location.
7.5.9 Determine exit signage requirements.
7.5.10 Determine exit lighting requirements.
7.5.11 Determine emergency power supply requirements.

7.6 Smoke Management Systems
7.6.1 Determine smoke resistance requirements for corridors, lobbies, etc.
7.6.2 Determine any active and/or passive smoke extract requirements.
7.6.3 Determine locations and sequence of operations for all smoke and fire/smoke dampers and duct detectors.
7.6.4 Determine stair pressurization requirements.
7.6.5 Determine high-rise building requirements.
7.6.6 Determine basement requirements.

7.7 Fire Suppression Systems
7.7.1 Determine portable fire extinguisher requirements: type, spacing, and location.
7.7.2 Determine automatic sprinkler system requirements: type, hazard classification, water supply, drainage, fire department connection, zone limitations, test equipment, exempt areas, and supervision.
7.7.3 Determine standpipe system requirements: type/class, number, location, minimum pressure, supervision, and fire department connection.
7.7.4 Determine fire department access and suppression provisions: hydrant locations, fire department access roads, and fire lanes.
7.8 Fire Detection and Alarm Systems
[ ] 7.8.1 Determine manual pull station requirements: type, spacing, and location.
[ ] 7.8.2 Determine automatic detector requirements: type, spacing, and location.
[ ] 7.8.3 Determine occupant notification and alarm requirements: type (horn, horn/strobe, speaker strobe, ...) and location. (Verify impact of interior rooms.)
[ ] 7.8.4 Determine sequence of operation of all systems, e.g., that are connected to or monitored by the building detection and alarm system. Examples include, fan shut-down, smoke management systems, and stairwell pressurization systems.

7.9 Special Hazards
[ ] 7.9.1 Limits of flammable liquids and other hazardous material (chemical/gas inventory)
[ ] 7.9.2 Hazardous material spill control
[ ] 7.9.3 Hazardous material containment
[ ] 7.9.4 Explosion protection and venting
[ ] 7.9.5 Hazardous material detection systems
[ ] 7.9.6 Hazardous labs ventilation systems, hoods and chemical and gas storage cabinets.
[ ] 7.9.7 Special suppression systems for special hazard areas

7.10 Building Services
[ ] 7.10.1 Emergency generator
[ ] 7.10.2 Elevators
[ ] 7.10.3 Access to space and functions by persons with disabilities

7.11 Plumbing
7.12 Ventilation and Exhaust
7.13 Electrical
7.14 Other issues identified by the design team