

## BUILDING DATA

Calif. Polytechnic State University Building 042, Mott Gym.

Original Construction 1958

Gym-

Occupancy Type: A-4 Occ. (Per CBC Sec. 303.5), non-sprinklered

NOTE: Type I-B won't work because of Primary Structure frame at roof, requires 1 hr. protection.

Construction Type: II-B [(E) Condition per current code]

Primary Structural Frame Non Combustible– Concrete columns, steel girders

Roof Framing Non Combustible- Steel

Non Combustible Exterior Walls: (E) Concrete Complies

No Interior Walls and Partitions.

Fire separation distance is greater than 30', NO LIMIT on exterior openings per table 705.8

Occupancy Separations between Gym (A4) and Locker Rooms (B)- 2 hour, (E) 12" thick concrete wall complies, Openings require 1-1/2 Hour rating

No. of Stories: 1 – OK per Table 503, 2 stories Allowed

(E) Building Height- 48'

Actual Building Area-

First Floor: 24,940 sq. ft.

Mezzanine (Press Box) – 304 sq. ft. , not included in Area, less than 10 occupants, not open to Gym, OK per 505.2.3, Excpt. 1.

Proposed New Building Area- 0 sq. ft.

Allowable Area Calculation

$A_a = [A_t + [A_t \times I_f] + [A_t \times I_s]]$  (Per 506.1)

$I_f = [F/P - 0.25] \times W/30$  (Per 506.2)

$P = 534$  ft. (Total Perimeter)

$F = 362$  ft.

$W = 30$ - greater than 30' separation.

$I_f = [F/P - 0.25] \times W/30$

$I_f = [362/534 - 0.25] \times 30/30$

If = .43

Is = 0 (non sprkld)

At = 9,500 sq. ft. (Per Table 503)

Aa = {9,500 + [9,500 x .43] + [9,500 x 0]}

Aa = 9,500 + 4,085 = 13,385 sq. ft. per Floor

First Floor- 24,940 sq. ft.- **Existing Building exceeds Allowable by 11,555 sq. ft. (86%)**

Locker Rooms and Class Rooms-

Occupancy Type: B Occ. (Per CBC Sec. 304.1), non-sprinklered

Construction Type: III-A [(E) Condition per current code]

Primary Structural Frame 1 hr. – (E) Concrete Columns comply at walls, Concrete beams at roof comply

Non Combustible Exterior Walls: (E) 6" thk. Concrete Complies

2-HR Exterior Walls [Per Table 601]: (E) 6" Thk. Concrete Complies

Interior Walls and Partitions may be of any material allowed by the Code (Sec. 603.2); Non-Rated (Table 601)

(E) Concrete Interior Bearing Walls and Concrete Columns.

(E) Metal Stud and Wood Stud Interior Non-Bearing Walls

No. of Stories: 2 – OK per Table 503, 3stories Allowed

(E) Building Height- 29'

Actual Building Area-

Basement- 2,206 sq. ft

First Floor: 29,504 sq. ft.

Second Floor- 12,082 sq. ft.

Total: 43,792 sq. ft.

Proposed New Building Area- 0 sq. ft.

Allowable Area Calculation (See Site Plan for Dimensions)

Aa = [At+[At x If] + [At x Is]] (Per 506.1)

Lf = [F/P-0.25]\*W/30 (Per 506.2)

P = 738 ft. (Total Perimeter)

F = 525

W = 30: greater than 30' separation.

If =  $[F/P - 0.25] * W/30$

If =  $[525/738 - 0.25] * 1$

If = .47

Is = 0 (non sprkld)

At = 28,500 sq. ft. (Per Table 503)

Aa =  $\{28,500 + [28,500 \times .47] + [28,500 \times 0]\}$

Aa =  $28,500 + 13,395 = 41,895$  sq. ft. per Floor

First Floor- 29,504 sq. ft. < 41,895 sq. ft. Allowable, **OK**

Second Floor – 12,082 sq. ft. < 41,895 sq. ft. Allowable, **OK**

Total Allowable Area- 83,790 sq. ft. (506.4.1, 2 stories)

Total (E) Area – 43,792 sq. ft. (including Basement) **OK**

#### **DSA Info-**

##### **DSA number 110610.**

Path of Travel through First Floor hallways. Restrooms first floor 105 and 106. Drinking Fountain at Lobby. Locker rooms 120E, 120D.

##### **DSA number 01-110743 at Pool.**

#### **Fire Sprinkler Info-**

Room 125 only, Service Room 125B.

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