What My Mother Didn't Tell Me About…..
Design and Construction

by Edward K. Takahashi, FAIA, CCS

August 3, 2011

Topics of Discussions

1. Know Your Building!
2. What Do You Know About Nails?
3. Plywood versus OSB
4. Tile Roof Underlayment
5. Firestopping in wood frame double party wall construction
6. Forensic assignments

Who the hell is Edward Katsuaki Takahashi?

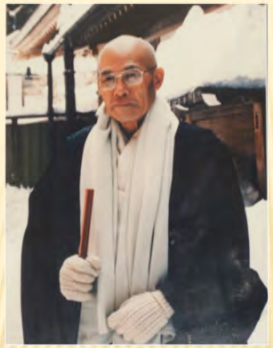
Fellow, American Institute of Architects
American Arbitration Association Large Complex Case Panel Neutral
International Accreditation Services, Inc., Technical Advisory Council
(Subsidiary of the International Code Council)

President, California Basketball Officials Association, 1979-1981
Commissioner, Southern California Women's Athletic Union,1970-1994
Commissioner, Japanese American Optimist Club Girls Sports Program, 1969-1979

Eagle Rank, 1953
Silver Beaver, 1989

Suzue (Suzie) Takahashi
November 8, 1010

Edward Katsuaki Takahashi
November 8, 1936



452nd Hoin (Abbot) Seytsu Takahashi of the Shingon Buddhism
(December 1, 1905 – April 1, 1984)

Archbishop of North America
Archbishop of South America

1935

LOS ANGELES, CALIFORNIA

HEART MOUNTAIN, WYOMING

1943

1943 1943

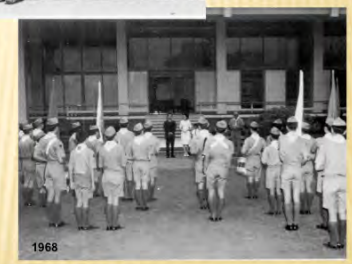
FROM HOME TO
KOYASAN BUDDHIST TEMPLE
(ASSEMBLY POINT) TO
SANTA ANITA RACE TRACK TO
ROWHER, ARKANSAS TO
CRYSTAL CITY, TEXAS,
AND FINALLY BACK TO
LOS ANGELES

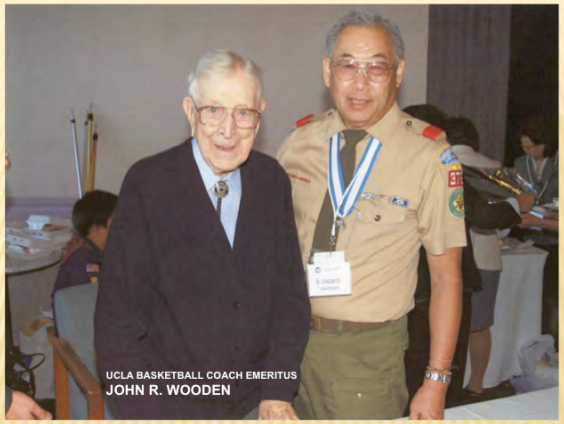
TOYO MIYATAKE

In 1942, **Toyo Miyatake,** a Japanese-American photographer, was interned in the Manzanar Relocation Camp where he was impelled to secretly photograph his story.
In 1943, **Ansel Adams** was drawn to Manzanar, where he produced his most compassionate body of work. These are their photographs:
Two Views of Manzanar.

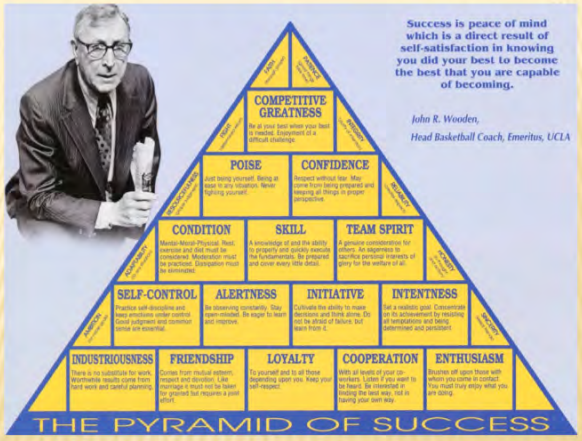
ANSEL ADAMS

25th ANNIVERSARY
1956





KOYASAN BOY SCOUT TROOP 379 75TH ANNIVERSARY LUNCHEON, OCTOBER,22 2006



END

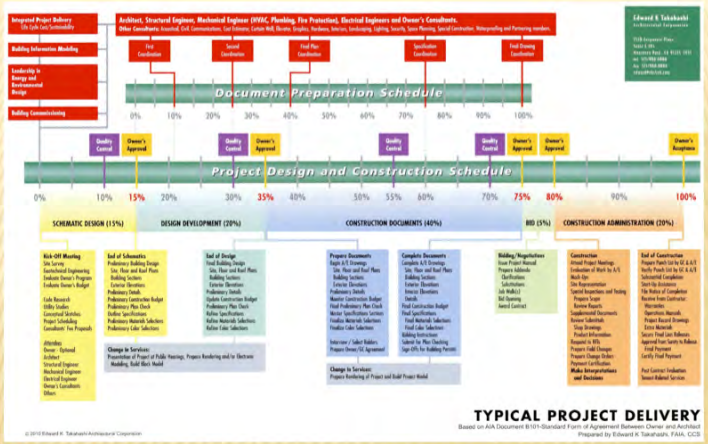
I am always…
a student.

Le Corbusier (Charles Edouard Jeanneret)
1961 AIA Gold Medalist

HOW TO AVOID LITIGATION

1. LEARN FROM OTHERS ERRORS AND OMISSIONS DURING SCHEMATIC DESIGN, DESIGN DEVELOPMENT, CONSTRUCTION DOCUMENTS PREPARATION, BIDDING/NEGOTIATING AND CONSTRUCTION PHASES.
2. ESTABLISH QUALITY CONTROL AND COORDINATION WITHIN YOU ARCHITECTURAL FIRM, AND WITH YOUR CONSULTANTS.
3. PROVIDE COMPETENT CONTRACT ADMINISTRATION DUTIES DURING CONSTRUCTION.

EKT 4n6



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Building Science.Com

Drain the site
Drain the ground
Drain the building
Drain the assembly
Drain the opening
Drain the component
Drain the material

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GENERAL NOTES

[From a topographical survey of a past assignment]

1. TOTAL SITE – 50.329 ACRES GROSS
2. *DOGPATCH* WATER DISTRICT: PHONE 111-222-3333
   DOGPATCH GAS & ELECTRIC: PHONE 444-555-6666
   PACIFIC BELL: PHONE 777-888-9999
3. ASSESSOR'S PARCEL NO. 111-2222-3333-44
4. THIS SITE IS WITHING "ZONE AA" AS SHOWN ON FIRM MAP NO. 123456789 DATED JUNE 10, 1997 (FLOOD DEPTH OF 1-3 FEET)
5. *DOGPATCH* ENGINEERING OF CLEAR CREEK HAS PREPARED THE *DOGPATCH* FLOOD MANAGEMENT REPORT" IN OCTOBER 1989 FOR THE COUNTY OF *CLEAR CREEK* . THIS REPORT SHOWS THE 100 YEAR FLOODFLOW TO BE AT 6.5 FPS [feet per second] AND 2.0 FEET [deep] FOR THIS AREA. PLEASE CONTACT *LI'L ABNER* OF THE *CLEAR CREEK* COUNTY FLOOD CONTROL DISTRICT AT 222-333-4444 FOR FURTHER IMPORTANT INFORMATION.
6. THE UNDERGROUND (U/G) INFORMATION SHOWN HEREON HAS BEEN PLOTTED BASED ON DRAWINGS PROVIDED BY THE UTILITY COMPANIES. THESE DRAWINGS WERE NOT TO SCALE AND SOMEHWAT VAGUE. THE LOCATIONS AS PLOTTED HEREON ARE APPROXIMATE ONLY. THIS U/G LOCATION & DEPTH SHOULD BE FIELD VERIFIED PRIOR TO DESIGN AND/OR CONSTRUCTION.

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Major Deficiencies Noted In Incoming Architectural Graduates (7)

By AIA/National Survey of mid-1980's

1. **Understand techniques for making building water and moisture proof.**
2. **Understand roof system slopes, applications and flashing.**
3. Apply knowledge of materials characteristics in meeting fire safety requirements.
4. **Knowledge of roof drainage and water disposal.**
5. **Prepare details for moisture and environmental control.**
6. **Knowledge of flashing, drainage and weatherstripping wall openings.**
7. Design and details ramps and stairs.
8. Determine any special safety and emergency egress requirements
9. **Understand dampproofing and waterproofing subgrade walls.**
10. **Use moisture barriers in concrete slabs on grade.**
11. Understand detailing for fire wall and plenum requirements.
12. Knowledge of requirements for handicapped accessibility codes.
12. Knowledge of requirements for energy performance standards.
13. Understand detailing in various construction types.
14. Selected materials systems and equipment that meet design objectives.
15. Verify that materials conform to Code.
16. Prepare details to attached finish materials to structure.
17. Awareness of importance of site constraints in the design process.
18. Know materials assemblies for fire-rated mechanical and electrical systems enclosures.
19. Incorporate date (e.g., tomography, views, soils) in make design decisions.
20. Identify basis of classifications of materials required for fire safety regulations.

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Major Deficiencies Noted In Incoming Architectural Graduates (12)

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Major Deficiencies Noted In Incoming Architectural Graduates (14)

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To: Schools of Architecture

1. **Design is only one aspect of the profession, what about materials, processes, professional practice, etc.**
2. **Give them other classes to prepare them for the "REAL WORLD" such as:**
   - A. **How to draw and detail building plans that can actually be built and not leak.**
   - B. **Get your students out onto the construction site so they can see and touch and feel the dirt, wood and steel studs and beams, concrete, rebars, rebar chairs, nails, nuts and bolts connections, etc.**
   - C. **Give them to tools to find details, and correct them to fit the project.**
   - D. **Have them read and understand the codes---building, green, accessibility, mechanical, electrical, etc.**
   - E. **Get the field guys into your professional practice class, and have them give and evaluation your students their take on the architects' work.**
   - F. **Have your soils, civil, structural, mechanical, electrical, acoustical, waterproofing consultants talk to students on their work and how they need to be coordinated.**
3. **For the first two years, don't let them near the computer' make them drawing the T-square and triangles, and make free hand sketches.**

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Know Your Building!

END

End of Introduction

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