

2025 ANNUAL BUSINESS MEETING

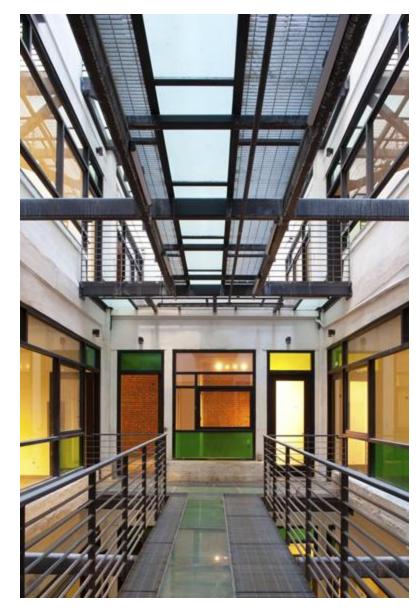
COMPLETION OF ADAPTIVE REUSE: OPPORTUNITIES, BENEFITS, AND APPLICABILITY

KARIN LILJEGREN, FAIA
Founder & Principal
Omgivning Architecture
& Interiors

DANIEL ZEPEDA, S.E.
Senior Principal / Office
Director LA Office
Degenkolb Engineers

RON TAKIGUCHI, P.E., CBO CALBO Past President Interim Building Official City of Long Beach





Adaptive Reuse: Opportunities, Benefits, and Applicability

- What + Why Adaptive Reuse
- Adaptive Reuse Projects:
 Incentives + Obstacles
- Case Study
 Generic 1980's office building
- Envisioning Other Building Types
- Administering Adaptive Reuse Projects:
 Constraints + Opportunities

Presented by Karin Liljegren, FAIA Principal + Founder





What is Adaptive Reuse?





Craftsman, Downtown, Los Angeles, CA - Omgivning







Repurposing an existing building for a new use



Why Adaptive Reuse?



Former YMCA / Harbor House / San Pedro, Los Angeles, CA - Omgivning

Housing crisis

RHNA (Regional Housing Needs Allocation) - State requirement to make a plan for the allocation of housing units for 2029 (City of LA is 456,000)

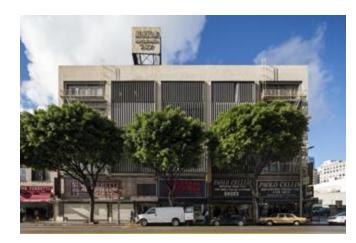
Why Adaptive Reuse?



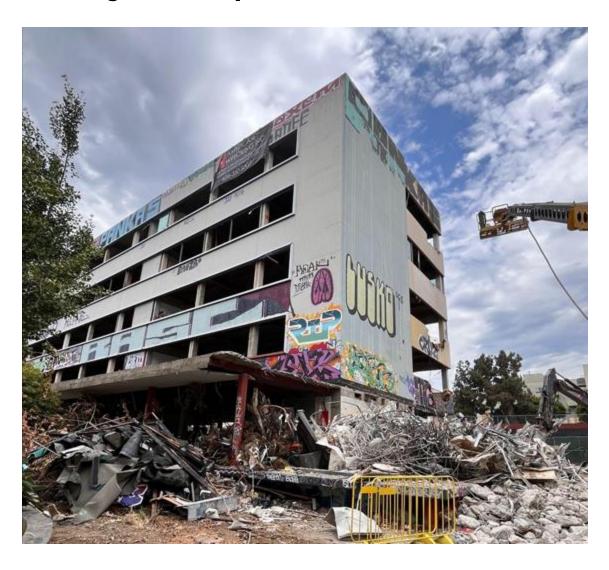
Fabric / Downtown, Los Angeles, CA - Omgivning

Urban Revitalization

Cultural Identity + Heritage



Why Adaptive Reuse?



Environmental

- Loss of embodied carbon
- Construction and demo waste makes up 40% of landfill waste



1999 - Los Angeles Adaptive Reuse Ordinance

Creation of over 12,000 new housing units and 2000 hotel keys in 10+/- years













Projects by Karin Liljegren while at KFA, Downtown + Holywood, CA

Significant effort with Alternative Building Standards

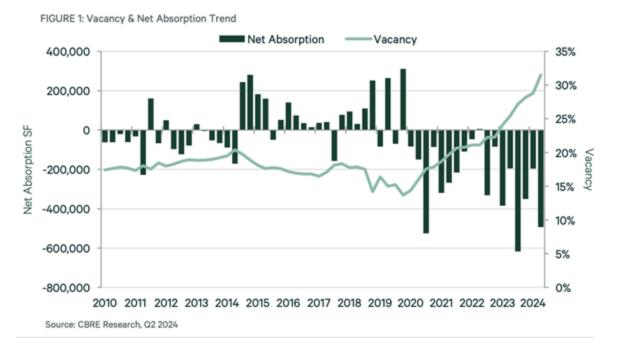
- LABC Chapter 85 alternative building code standards for Joint Living + Work Quarters (pursuant to Health and Safety Code Section 17958.11(a))
- Request for Modifications

Code Officials were on board:

- Dedicated ARO staff at LADBS/LAFD
- In person meetings for each project team to discuss comprehensive existing conditions and reasonable alternative code upgrades

2025 Los Angeles: Office Vacancy 50+ million sf





25% office vacancy in Los Angeles County

34% office vacancy Downtown Los Angeles (and climbing)

(Industrial and Retail vacancy at 6%)

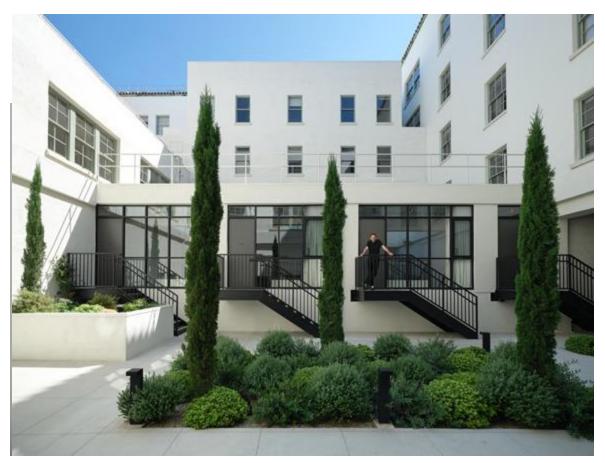
Move to Class A - trophy

Downsizing of office sizes for hybrid

Class B and C office continue to decline

Office vacancy impacts ground floor retail and safety on the streets

Economics are not working



Former YMCA / Harbor House / San Pedro, Los Angeles, CA - Omgivning

Construction Cost 3x

2006 = \$150/sf +/-2025 = \$450/sf +/-(inflation AND increase in code requirements)

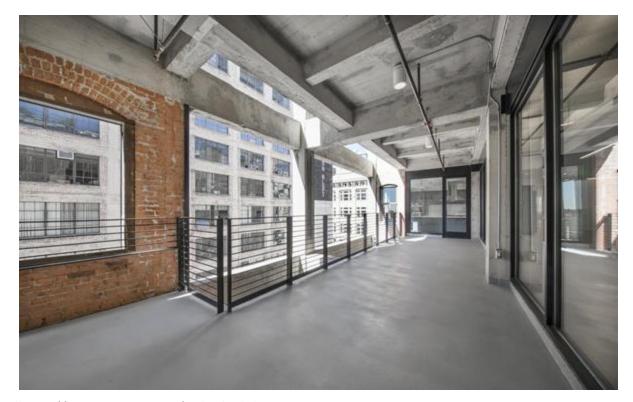
Comparative Rents (dtla)

1.7x

2006 = \$1700 average 2025 = \$2888 average

- + higher interest rates
- + tightening on lending of which AR is considered high risk due to unknowns

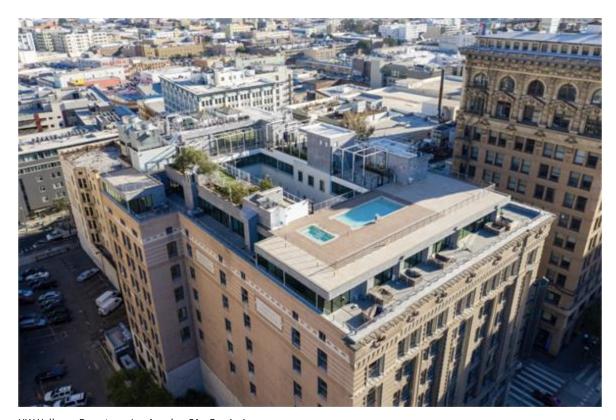
Narrative in Real Estate "AR doesn't pencil"



Singer Building, Downtown, Los Angeles, CA - Omgivning

- Seismic retrofits are too costly
- Deep floor plates don't work
- Acquisition costs aren't low enough yet
- Required code compliance = high construction costs, no flexibility in regulatory requirements
- No certainty by code officials of what will be required.

2025 LA County: 4 new Adaptive Reuse Ordinances



HW Hellman, Downtown Los Angeles, CA - Omgivning

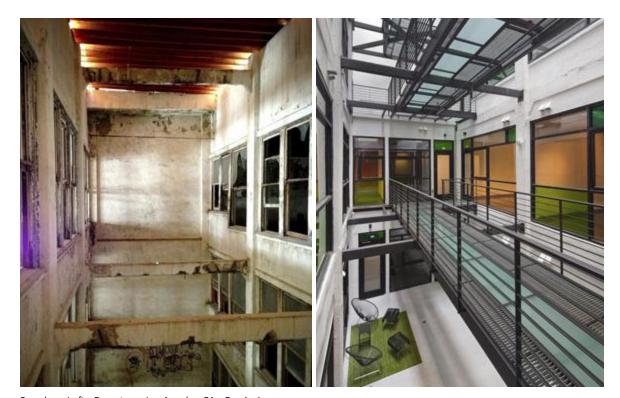
DTLA ARO 2.0

LA Citywide ARO

Santa Monica ARO

Pasadena ARO

ARO: Potential Incentives



Broadway Lofts, Downtown Los Angeles, CA - Omgivning

- No entitlements
- Opens up recent past buildings (as young as 5-15 years old)
- Opens up smaller sizes or partial conversions
- Potential for new floor area
- No affordable requirements or linkage fees
- No parking (or little)
- No density requirements
- By-right roof additions

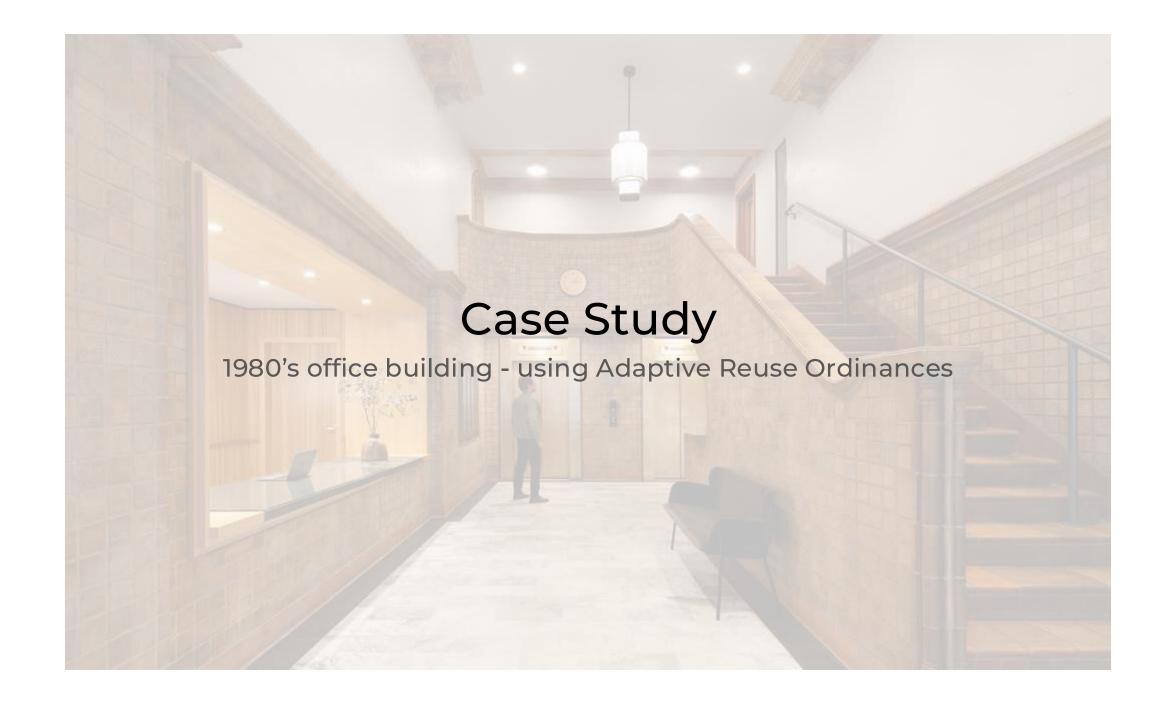
California Code Changes in the Works



Rendon Hotel, Downtown Los Angeles, CA - Omgivning

- AB529 requires the state to revisit and revise existing codes, which can present significant barriers to adaptive reuse
- SEAOSC is working on recommendations some of which could be:
 - Limit the required retrofits to vulnerable buildings only
 - Allow partial conversions without retrofit
 - Phased approaches

WE CANNOT WAIT FOR THESE



Case Study - Recent Past Office



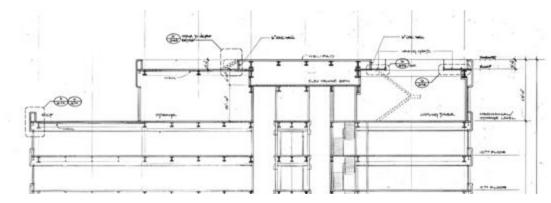
Stats

- 1983 Office Building Class B
- 10 stories, 160 ft tall (high-rise)
- Steel Moment Frame Building
- 218,374 gross SF in the tower
- 140,000 leasable SF
- 677 parking stalls in separate structure
- 70% vacancy

Potential key cost factors

- Structural retrofit requirements
- Electrical / sewer capacity
- Envelope renovations
- Exiting + Fire Life Safety high rise requirements

Architectural Analysis





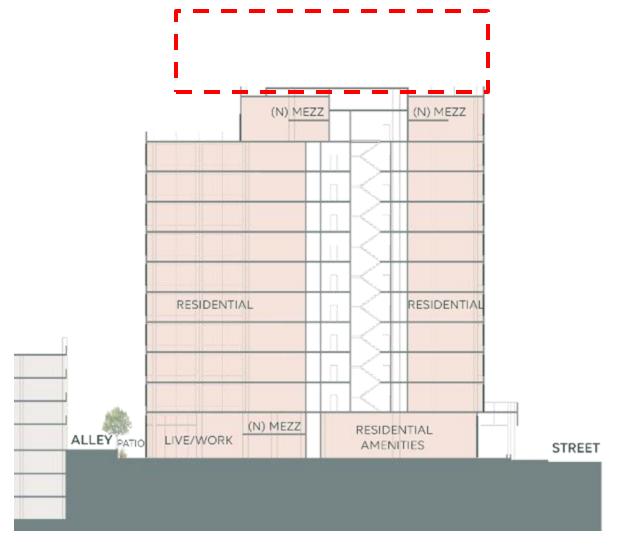
Challenges

- MEP is at the end of life cycle
- No operable windows
- Nondescript exterior
- Deep floor plates

Opportunities

- MEP is at the end of life cycle
- Well maintained building
- Clean alley
- Unused double-height rooftop mech penthouse
- Double height ground floor
- Higher ceilings than new residential
- Reasonably code compliant including fire life safety

Increase Leasable SF



New Floor Area:

- 17'+ floor heights can provide new intermediate floors
- Mechanical penthouse to become residential areas

Bonus Areas:

- If structural retrofit is required, adding new stories may be more viable
- Typically one additional floor for amenities is allowed. In some ARO's 2 floors of housing + another floor of amenities

Proposed Conversion (NIC roof addition):

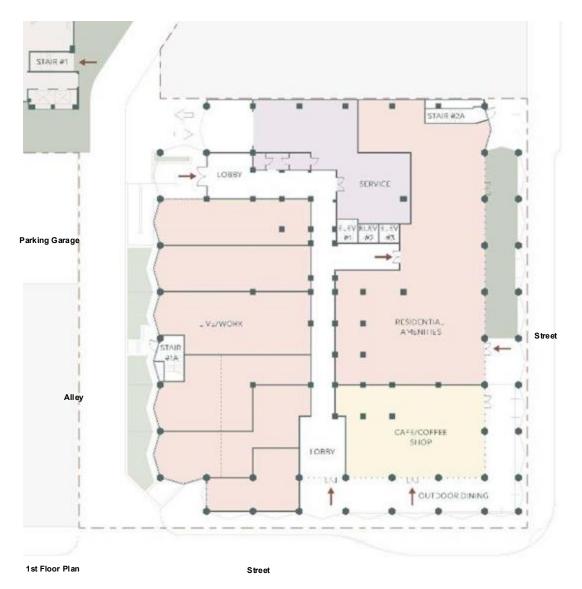
- 173,000 resi leasable 1,900 retail leasable
- Added 6,000 SF of new floor area for mezzanines
- Increased leasable from office sf by 45,000 SF

With Roof addition:

Could increase an additional 20-50,000sf

Section

Utilize Ground Floor

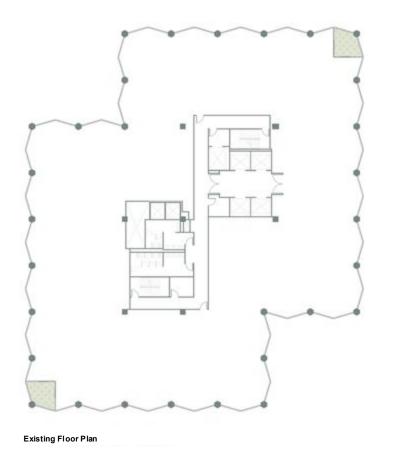




Ground Floor Leasability:

 If area for ground floor retail is not viable, uses could be live/work and/or residential amenities such as co-working, lounge, gym to activate the public way

Deep Floor Plate

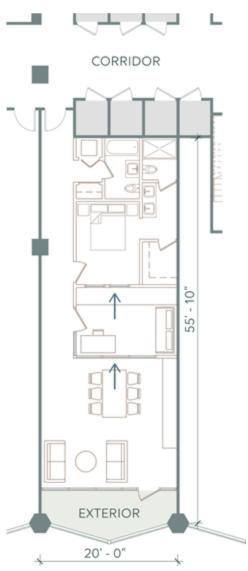




Proposed Floor Plan

Shotgun Units

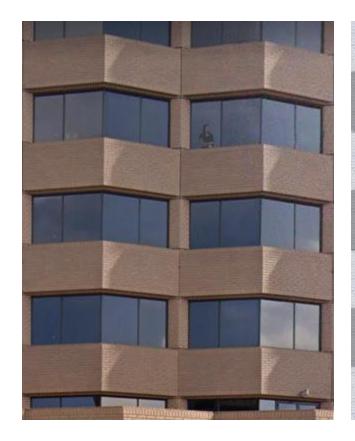




Building Envelope

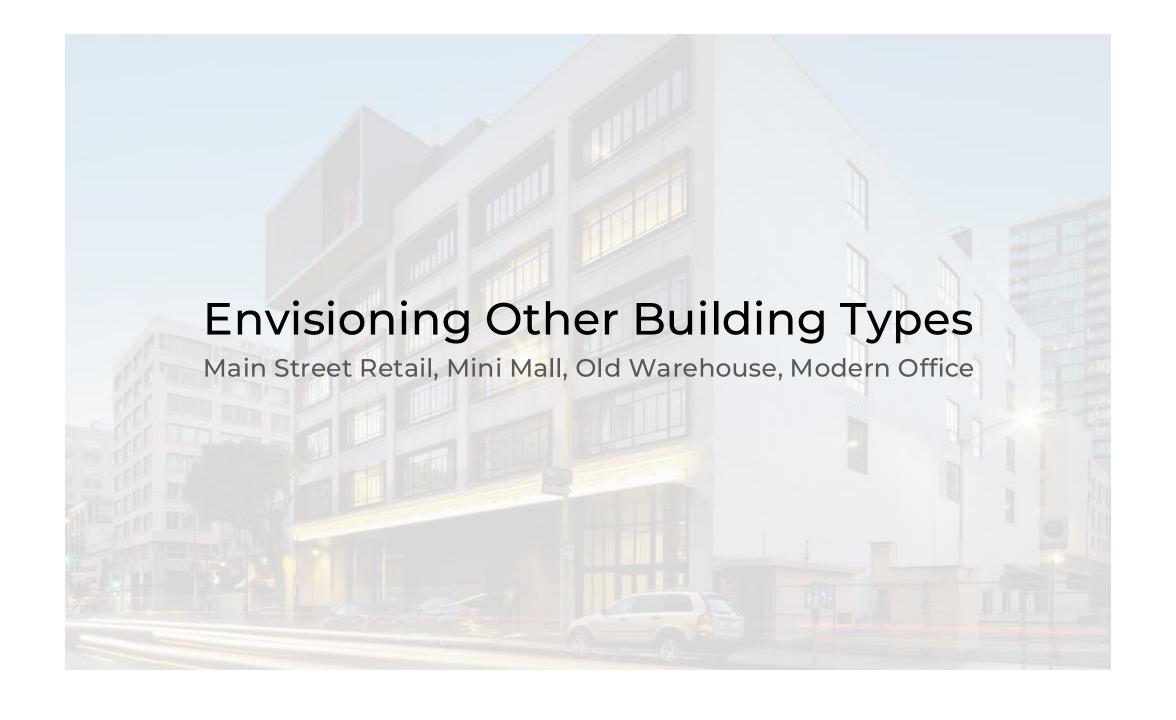
Option A - maintain existing fixed windows

Option B - inset balcony with storefront with clear glass









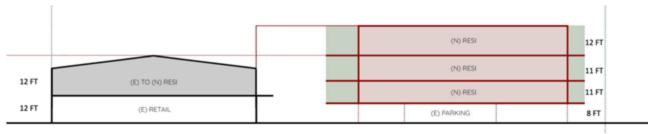
Case Study - Santa Monica ARO

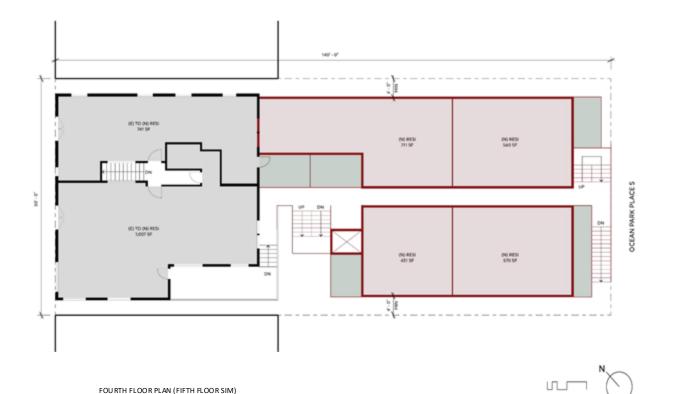
Small scale 2nd floor change of use

New Construction in rear









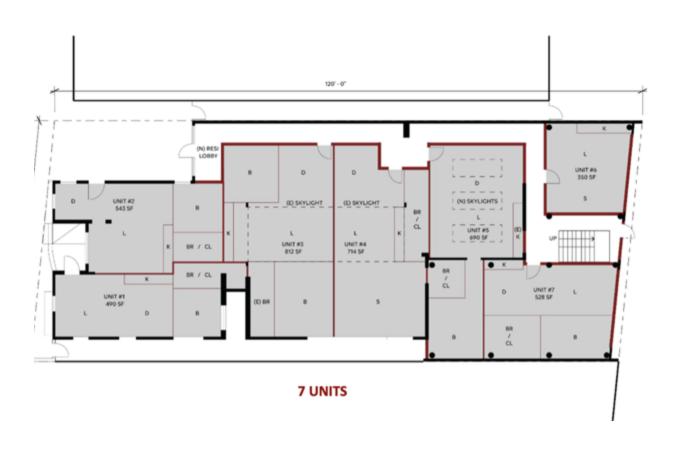
Case Study - Santa Monica ARO

Simple change of use within envelope

Original use - residential

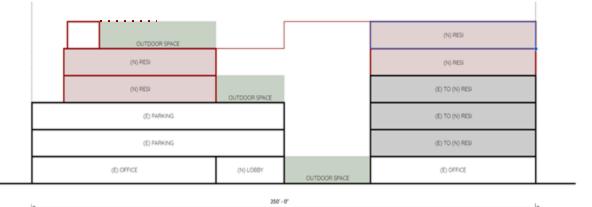






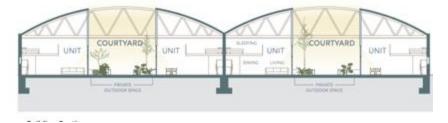
Case Study Santa Monica ARO

Two story additions with roof amenity above





Case Study - Industrial





MATEO STREET





Zone

- Is residential allowable in zone per the ARO

Structure

 If URM, retrofit was likely completed in 1990's, so a light conversion may not trigger many if any upgrades

Floor Area

Additions will be expensive but mezzanines with space likely viable

Case Study - Mini Malls



First Floor Concept Plan





Zone

- Is residential allowable in zone per the ARO

Structure

 If no new roof occupancy or addition, no seismic retrofit

Low Cost Conversion

- Can we reuse stairs/elevators

Ground Floor Retail



Conceptual Floor Plan



Urban Vitality

- Empty buildings breed empty retail, empty retail breeds more empty retail which breeds significant safety issues.
- We must activate empty ground floor and provide flexibility

Live/Work

- Provides flexibility of working and/or living as needs shift
- Provide 24 hour eyes on the street and engagement

Large Concrete Buildings







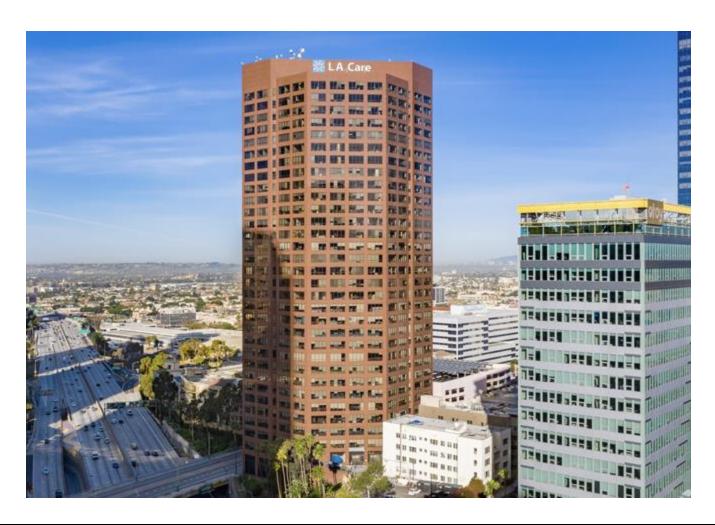
Structure

- Is likely under the mandatory seismic retrofit ordinance, so conversion to residential is the same retrofit that would be required if no change of use
- The building is so heavy, that removing for lightcourts is beneficial

Additions

 New additions are lightweight compared to the building and do not significantly impact the structure

Recent Past High Rise



Structure

 More recent past structures may not require a retrofit. Arco Tower, late 1980's, was just approved by LADBS for conversion with NO seismic retrofit

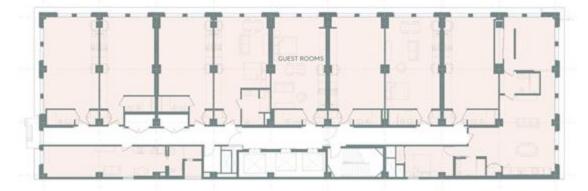
Fire Life Safety/Exiting

 More recent past structures have more code compliant exiting, smoke control and other requirements, so costs will be significantly less

Partial Conversion

If no retrofit, partial conversion is significantly easier

Historic







The Craftsman by Omgivning

Structure

 If building already has a mandatory seismic retrofit ordinance, then conversion should be strongly considered

Historic Tax Credits

 Over 50 years old could be eligible for historic tax credits: 20% National + possibly 20% +/- State



Opportunities + Challenges Related to Building/Fire



Sears Building, Downtown Los Angeles, CA - Omgivning

- Recent past buildings
 More code compliant, access and exiting are reasonably code compliant and usually built for a much higher occupancy, same risk category
- Parking not required (usually)
 Maintaining existing, ability to have non-code compliant aisle widths, ramps etc
- New floor area
- Roof additions
- Partial Conversions

New Roof Occupancy / Addition

Is it possible to keep B occupancy in lieu of A-3 occupancy?





Broadway Lofts, Downtown Los Angeles, CA - Omgivning

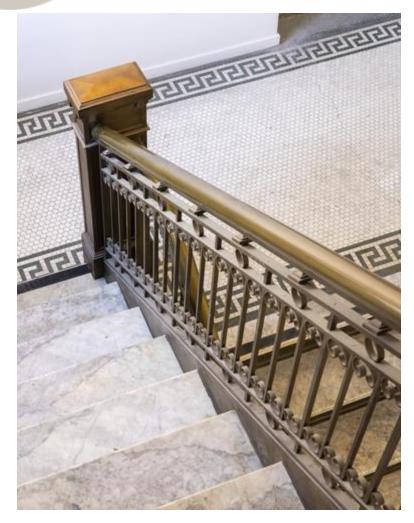
New ARO's incentivize new roof uses but this can often trigger significant access and exiting requirements. Due to the nature of this use being accessory to residential, provide modifications to reduce significant cost building alterations.

Allow increase in occupants for a new roof occupancy or addition for residential amenities, that is appropriate, to not trigger an A occupancy. Allow the reuse of existing existing system and a transfer gurney or other accessible elevator to the roof.

- 1. Roof addition/amenity deck is for the exclusive use by the building's residents and their guests.
- 2. Stair widths must be compliant for number of occupants

Existing Stairs

Generic Request for Mod



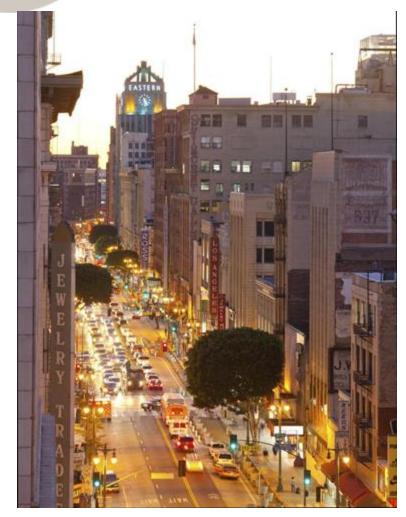
Garland Building, Downtown Los Angeles, CA - Omgivning

Allow for existing conditions to remain, mitigated with handrails and minor upgrades to accommodate existing conditions and provide upgraded safety

- 1. Existing stairway shall not be required to comply with the maximum riser height and minimum tread depth requirements; provided the stair has a with a minimum run of 9 inches, maximum rise of 8 inches, and a minimum landing depth of 30" and meets the required exit width based on occupancy.
- 2. Existing Exit Discharge under canopies should be allowed to remain per the provisions of CA Existing Bldg Code Section 314.8 provided that water curtains are installed at unprotected exterior openings within 10'-0" of the exit.
- **3.** New roof occupancy may maintain use of existing fire escape as a legal roof exit as long as total occupancy is below 50 occupants and 750sf maximum of occupiable area per the the provisions of CA Existing Bldg Code Section 314.8.

Medical Emergency Elevator

Generic Request for Mod



Downtown Los Angeles, CA - Omgivning

Allow reduction in requirements for medical emergency elevator service (meant for new construction) to be more in line with existing building conditions and other hardships.

1. If the Installation of new Gurney Elevator necessitates the creation of new shafts, significant structural work, or major reconfiguration of the building, they may maintain existing non-gurney elevators, provided a standard gurney can fit in a locked seated position and is stored on-site in an unlocked closet adjacent to the elevator lobby. For buildings converting spaces to occupied areas without elevator service, a new gurney compliant transfer elevator shall be provided from the highest existing floor to the new spaces.

Every project is unique









Location

- What policies
- What incentives for more revenue generating spaces
- Rent comps

Physical building characteristics

- Impact to construction cost
- Required code upgrades
- Seismic retrofit

Financial distress

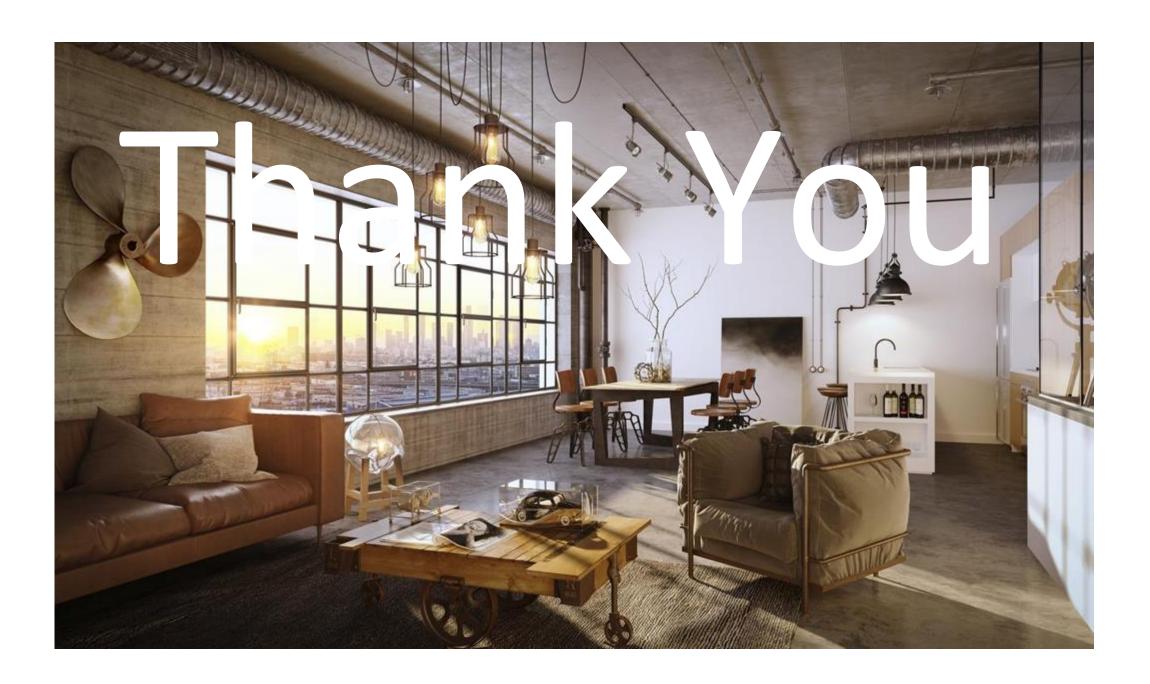
- Vacancy
- Basis

Call To Action

What Local Jurisdictions Can Do:



- 1. Create a guideline/examples for repeating Request for Modifications. What type of building stock do you have in your town. Ask experienced and creative Architects, Structural and MEP Engineers for input on suggestions.
- 2. Create a "go to" expert for adaptive reuse projects
- 3. Be a team player meet with the Architect/Engineers in person and talk through their requests for modifications (with justifications) and work on a holistic approach to a solution that helps reduce costs AND provides alternative solutions that provides life safety
- 4. Remember that reduction in time for processing permits = cost savings.
- **5.** More certainty of what will be approved at early stages = cost savings and more ability for loans to be approved





Adaptive Reuse:
Balancing Seismic Risk,
Housing Needs, and
Financial Feasibility

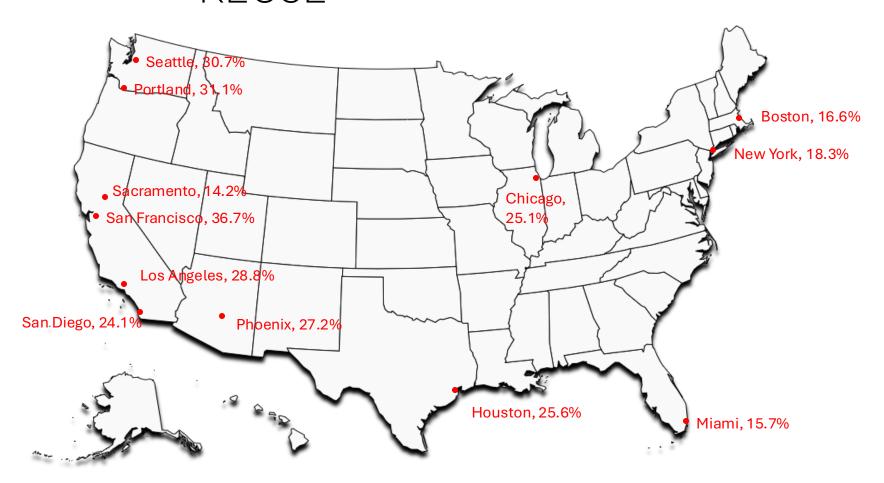
Shahen Akelyan, PE, SE Daniel Zepeda, PE, SE



REASONS FOR PROPOSING ADAPTIVE REUSE

Vacancies

- Due to economy
- Teleworking



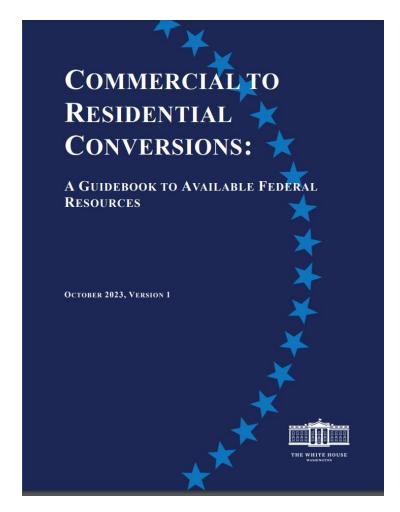
Percentage of Office Vacancies in Major US Cities

43

REASONS FOR PROPOSING ADAPTIVE REUSE

Political Pressure and Opportunities

- City Planning incentives
- Mandates for expedited reviews
- Public grants

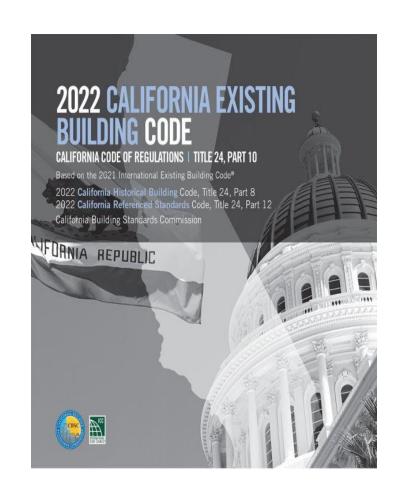


44

CALIFORNIA EXISTING BUILDING CODE (CEBC) REQUIREMENTS

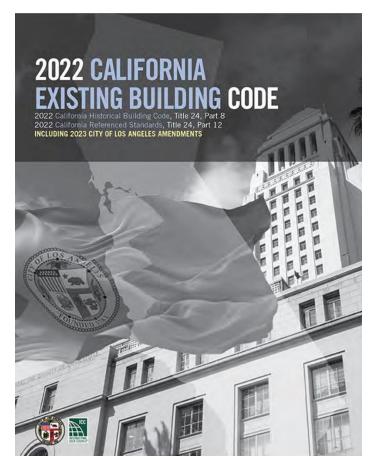
506.5.3 Seismic loads (seismic force-resisting system). Where a change of occupancy results in a building being assigned to a higher risk category, or where the change is from a Group S or U occupancy to an occupancy other then Group S or Group U, the building shall satisfy the requirements of Section 1613 of the California Building Code for the new risk category using full seismic forces.

With some Exceptions:



EXISTING LOCAL REQUIREMENTS LOS ANGELES

Section 506.5.3 of Los Angeles Existing Building Code requires all existing buildings shall be analyzed for 75 percent of the design earthquake ground motion for a change of occupancy of an existing commercial or industrial building to residential use.



RECOMMENDATIONS

When developing a local mandate, the first thing a jurisdiction must decide is whether a seismic safety trigger for changing the building's use from office or industrial to residential is appropriate for their community seismic safety and resiliency goals versus competing occupancy goals.

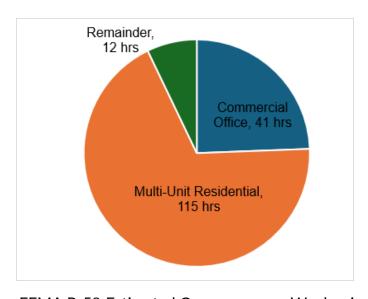
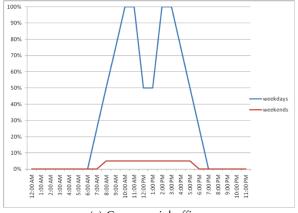


Figure 3 – FEMA P-58 Estimated Occupancy per Week prior to 2019

47

A NEED FOR STRUCTURAL UPGRADE

- Substandard and unsafe conditions.
- Existing irregularities and vulnerabilities.
- Additional benefits of structural improvements with minimal additional costs.
- Vacant building
- Local requirements that are triggered due to change of use or scope of work



(a) Commercial office



48

RECOMMENDATIONS

Another factor to consider is the resiliency aspect: if an office building is red tagged after an earthquake, people can largely still work from home. If a residential building is red tagged after an earthquake, displaced residents will likely have a bigger impact on the community.

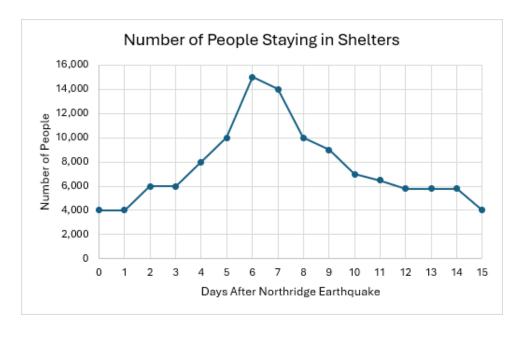


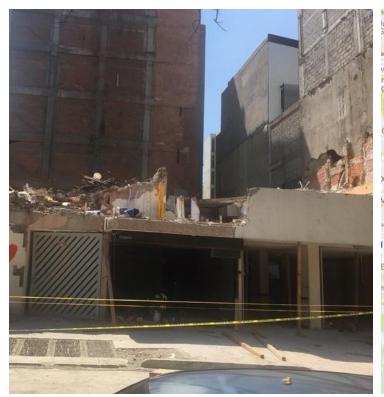
Figure 4 - Red Cross Northridge Earthquake Shelter Population Data

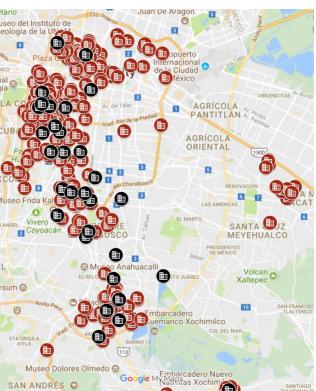
49

RECOMMENDATION #1

Limit the structural retrofit requirements of the Adaptive Reuse project to Seismically Vulnerable Building Types.

- 1. Unreinforced Masonry buildings
- 2. Non-Ductile Concrete buildings
- 3. Wood framed buildings with soft, weak, or open front wall lines on the ground floor,
- 4. Rigid wall- flexible diaphragm buildings
- 5. Precast concrete buildings, with nonstructural precast elements
- 6. Steel moment frame buildings
- 7. Steel braced frame buildings

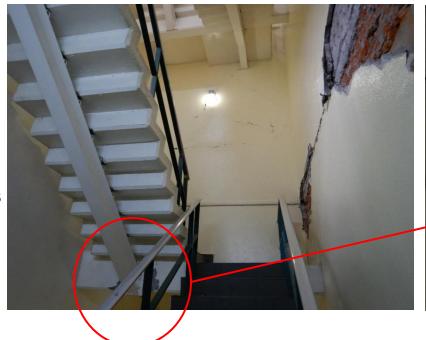




RECOMMENDATION #2

Limit the structural retrofit requirements of the Adaptive Reuse project to structural components performance only and not non-structural components.

- The intent of any structural upgrade shall be limited to structural performance only.
- If non-structural hazards are to be considered, they shall be limited to life-safety risks, such as exit paths and exit stairs.





Curico Hospital

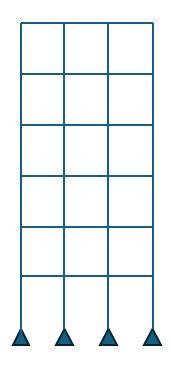
RECOMMENDATION #3

Provide exceptions for partial Adaptive Reuse Conversions.

- Provide exceptions when only a portion of the building is converted to residential use which does not significantly impact the hazard level of the building.
- Based on the percentage of floor area or number of stories.

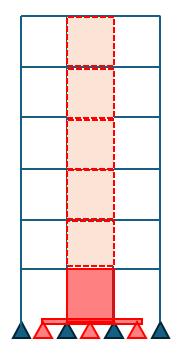


RECOMMENDATION #4



Existing Building

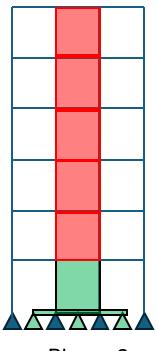
- Contains weak connections along the building height
- Contains Soft Story



Phase 1

Address Life Safety Performance Level@BSE-1E

- Full Analysis for Full Retrofit Scope
- Preliminary Design for Full Retrofit
- Final Design to LS@BSE-1E
- Indicate Phase 1 vs. Phase 2 on CD's
 - Construct Phase 1



Phase 2
Meet ASCE 41 Full BPOE

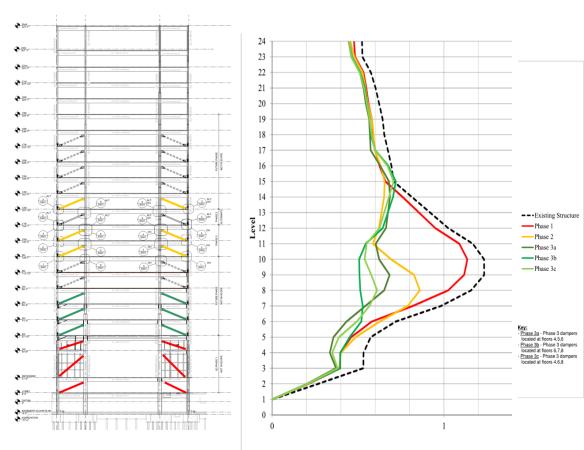
- Final Design to Meet ASCE 41
 Performance Objective
- Construct Phase 2

RECOMMENDATION #4

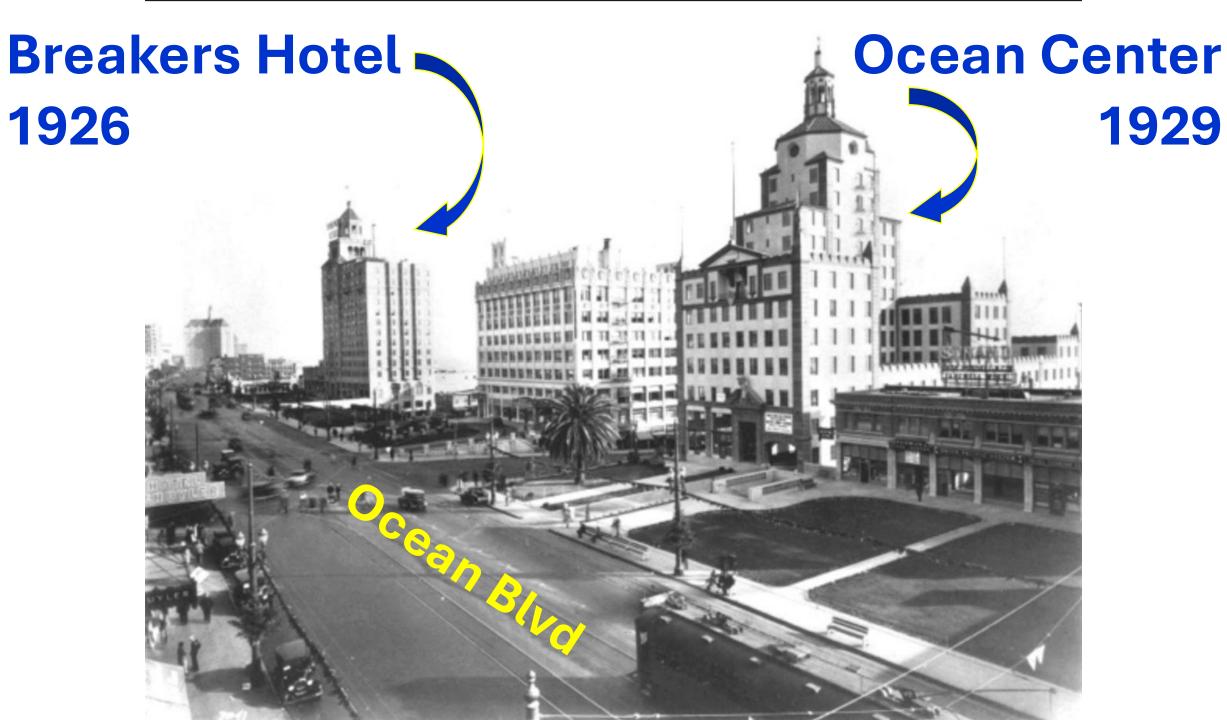
Permit a two-phased seismic retrofit scope to allow for an extended timeframe for construction, meanwhile mitigating most severe deficiencies for Life Safety in a shorter time frame.

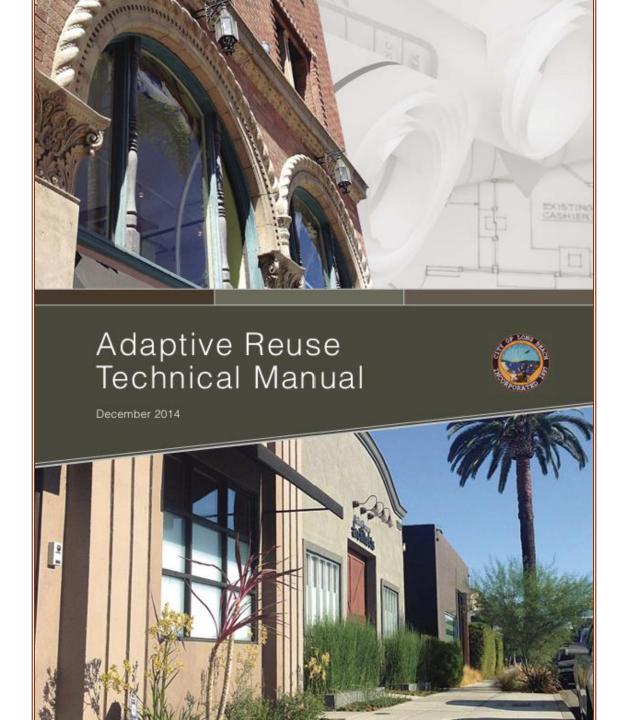
Challenges with Phasing

- How does a jurisdiction enforce Phase 2? What leverage do they have?
- Rules and regulations that would prevent withdrawing or revoking the initial Phase 1 approval.
 - Example: Owner completes Phase 1 and refuses to complete Phase 2. California State Bill 8, will not allow reduction of dwelling units in a lot.
- If building is sold or converted to condominium after Phase
 1, it will require a lot of coordination by the new owners
 to continue Phase 2











Long Beach Municipal Code Adaptive ReUse

"means a construction or remodeling project that reconfigures existing spaces, structures or buildings to accommodate a new use or to accommodate another purpose than what it was originally designed for."



<u>CA Health & Safety Code - Housing and Home Finance</u> Adaptive ReUse

"means the repurposing of building structures for residential purposes, such as former office use, commercial use, or business parks. When referring to building structures, adaptive reuse means retrofitting and repurposing of existing buildings that create new residential rental units, and expressly excludes a project that involves rehabilitation of any construction affecting existing residential units that are, or have been, recently occupied."

Change-of-Occupancy



✓ <u>CA Existing Building Code</u>
 § 301.3: Comply with Prescriptive, Work Area or Performance
 Compliance Method

§ 503.1: Alterations

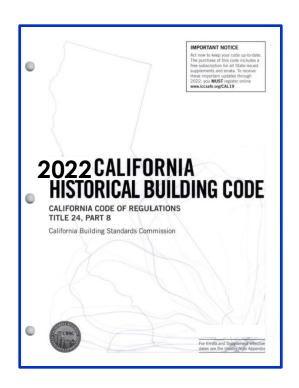


✓ CA Fire Code

§ 901.4.3: Alterations in Buildings & Structures

§ 1103.1: Fire Safety Requirements for Existing Buildings

Change-of-Occupancy

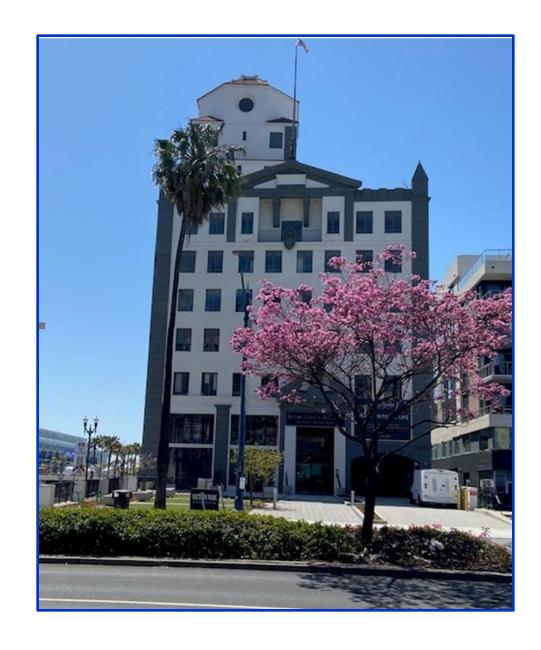


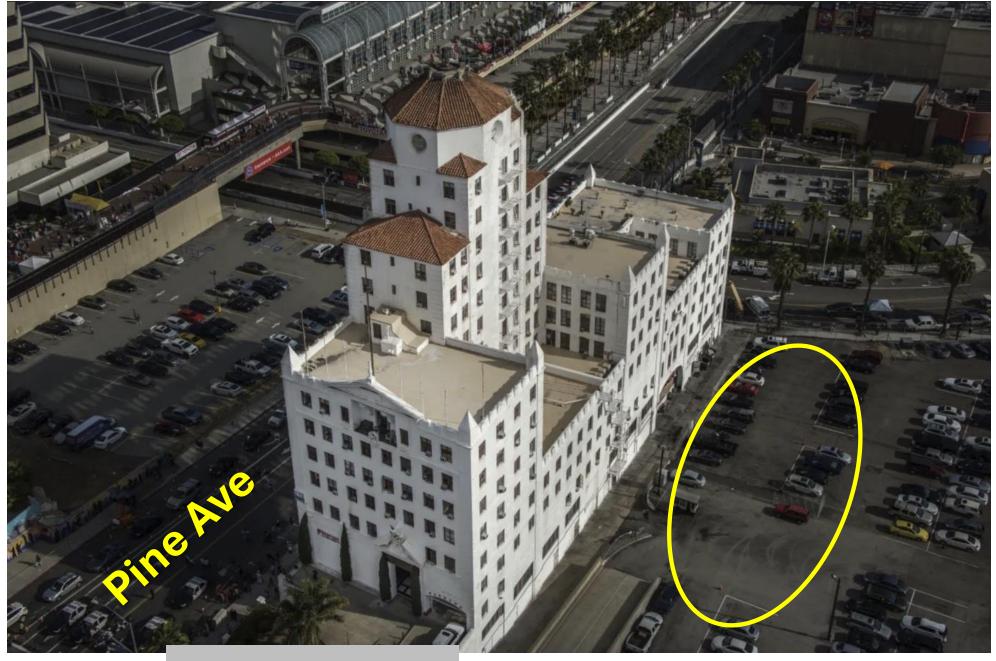
✓ CA Historical Building Code
§ 8-302.2 Change in Occupancy

The use or character of the occupancy of a qualified historical building or property may be changed from or returned to is historical use or character, provided the qualified historical building of property conforms to the requirements applicable to the new use or character of occupancy as set forth in the CHBC. Such change in occupancy shall not mandate conformance with new construction requirements.

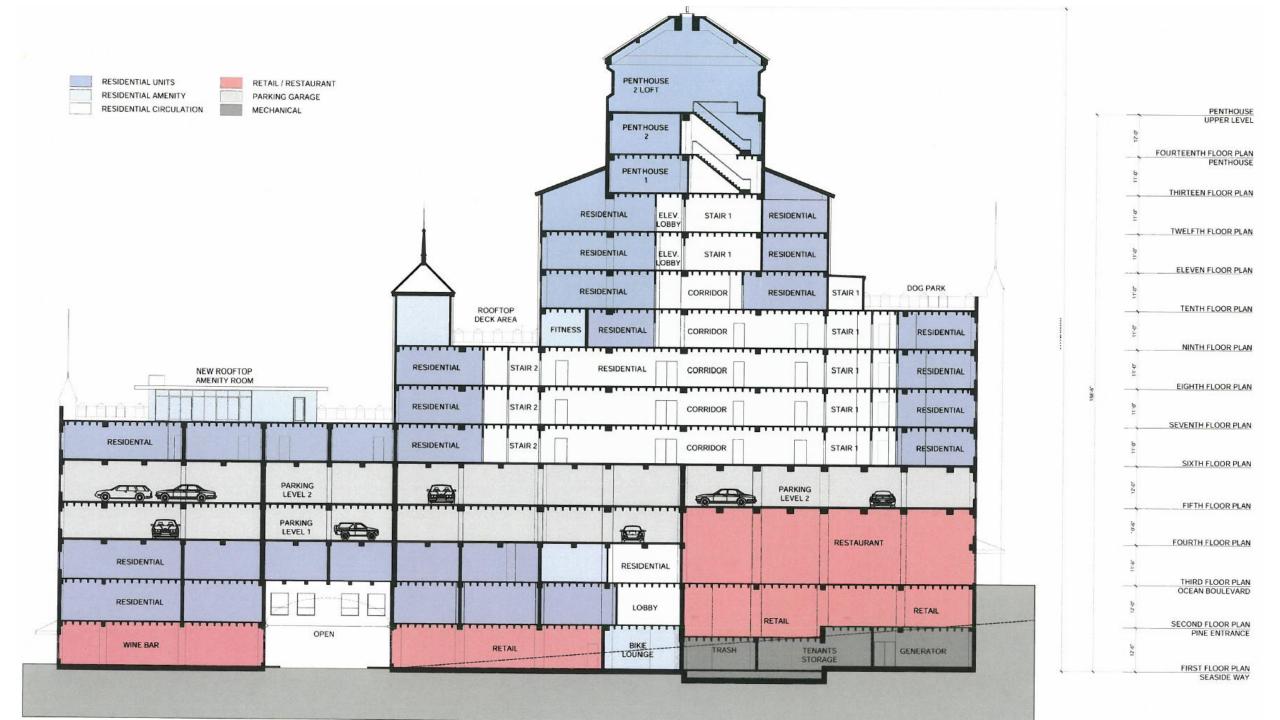
Ocean Center Adaptive ReUse

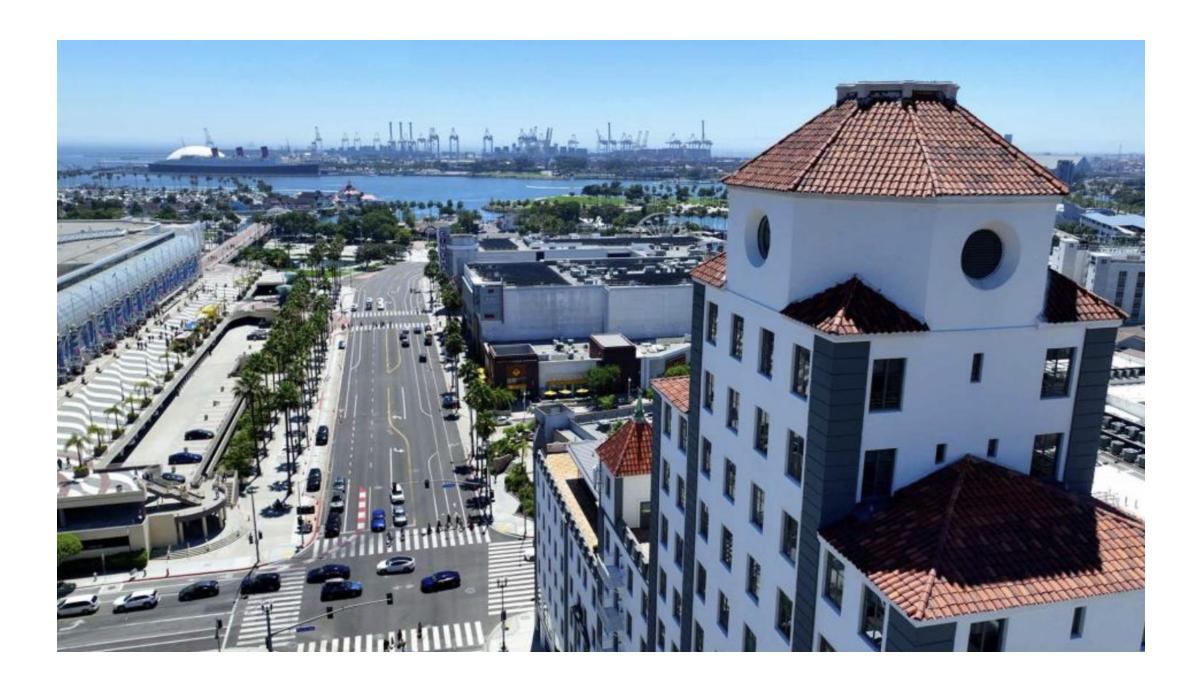
- ✓ Built in 1929
- √ 14-Story Office and Restaurant
- ✓ Designated Historical Landmark Building
- ✓ Type I-B
- ✓ B/A -to- R-2/S-2/B
- ✓ Residential Apartments
- ✓ 74 Units
- ✓ Commercial Spaces Ground Floor



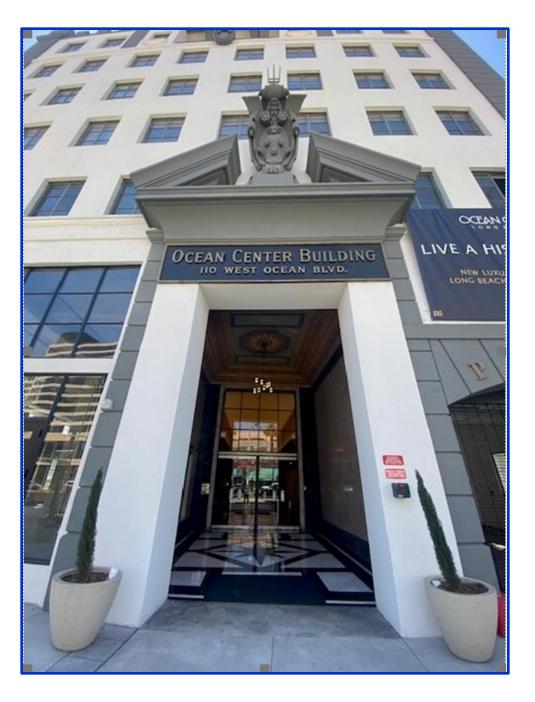


Ocean Blvd









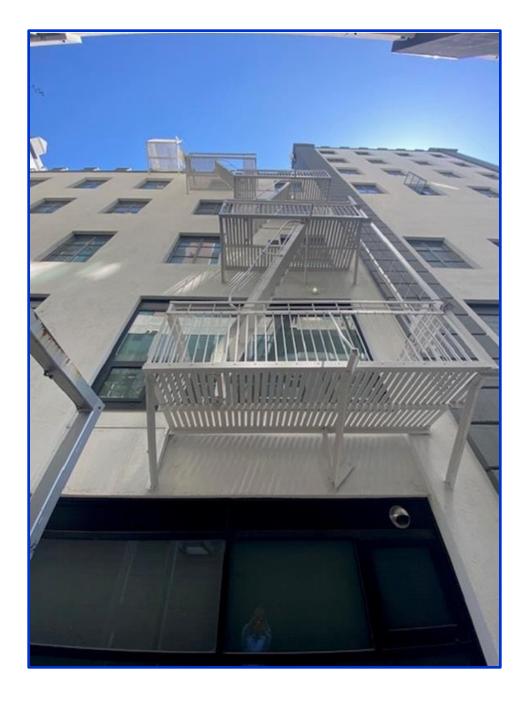
Existing Non-Complying (to Today's Code) High-Rise Building

- ✓ Means of Egress
- ✓ Open Stairwells
- ✓ Smokeproof Enclosures
- ✓ Handrails
- ✓ Rise-Run
- ✓ Opening Protection



Existing Non-Complying (to Today's Code) High-Rise Building

- ✓ Fire Escapes
- ✓ Fire Protection System
- ✓ Secondary Source of Water
- ✓ Fire Command Center
- ✓ Emergency Responder Radio
- ✓ Emergency Power System



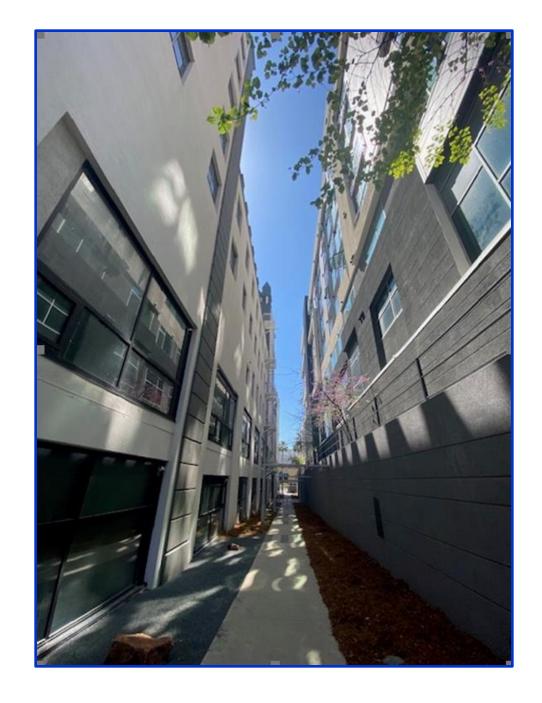
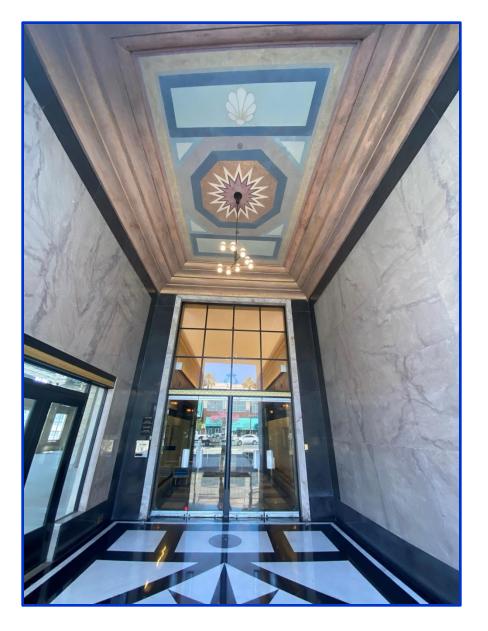




Photo Source: http://disneywizard.angelfire.com

Code Modifications (Historical Considerations)

- ✓ Historical Archway treated as Egress Court
- ✓ Opening Protectives for Fire Partition
 Corridor Walls
- ✓ Interior Exit Stairways to be Open
- ✓ Stairway Widths 42 Inches Instead of 44
- ✓ Stair Rise & Run
- ✓ Stairway: Handrail Height, Extensions,
 Guard Openings



Code Modifications (Historical Considerations)

- ✓ Fire Escapes and Fire Ladders Continued to be used as a Mean of Egress Component
- ✓ Floor Elevation & Threshold Exterior Door
- ✓ Natural Ventilation Bathrooms, Kitchens, Corridors
- ✓ Clothes Dryer Duct Length Exceed 14 Feet



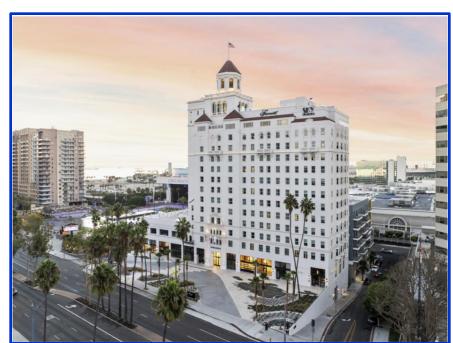








- Hilton Hotel 1938-1947
- Several Hotel Brands 1947 1964
- Closed 1964 1967
- Retirement Hotel 1967 1982
- Partial Conversion Back to Hotel 1982 1988
- Long Beach Historical Landmark Designation 1989
- Senior Citizen Housing 1990-2015
- Hotel Restoration 2017 Present
- Breakers Hotel Grand (Re) Opening November 2024



Breakers Hotel Adaptive ReUse

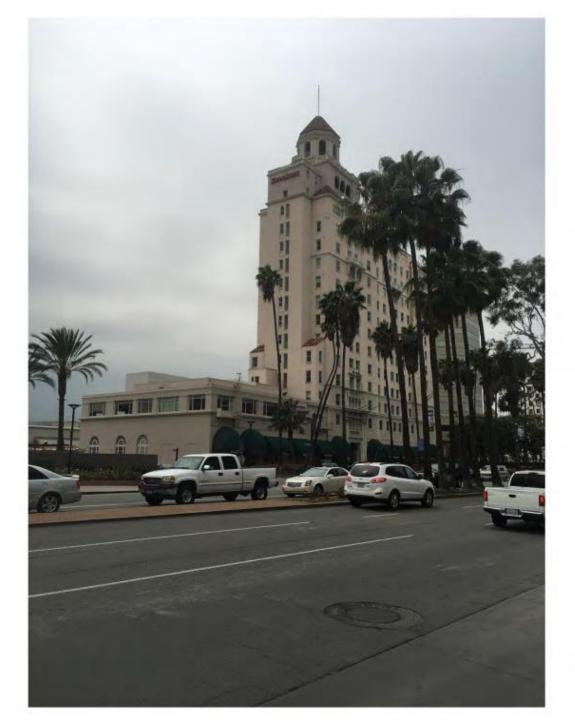
- ✓ Built in 1926
- √ 13-Story Building + 14th Story Cupola + 14th Story Cupo
- ✓ Designated Historical Landmark Building
- ✓ Type I-B
- ✓ R-2.1 -to- R-1/A-2/A-3/B
- ✓ Hotel w/ Meeting Rooms, Restaurants
 Bars, Lounges
- √ 185 Rooms
- ✓ Add Outdoor Rooftop Pool
- ✓ Re-Landscaping Victory Park



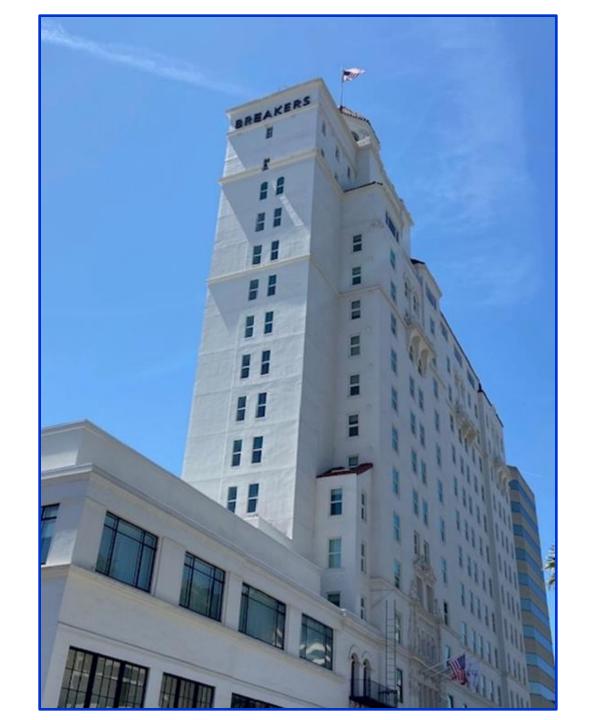


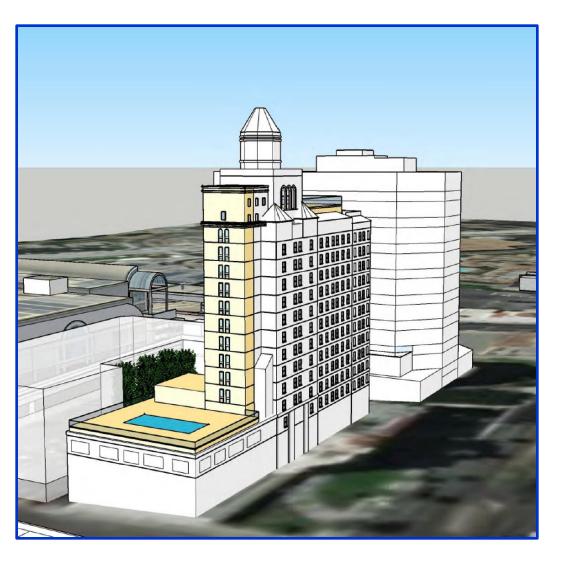












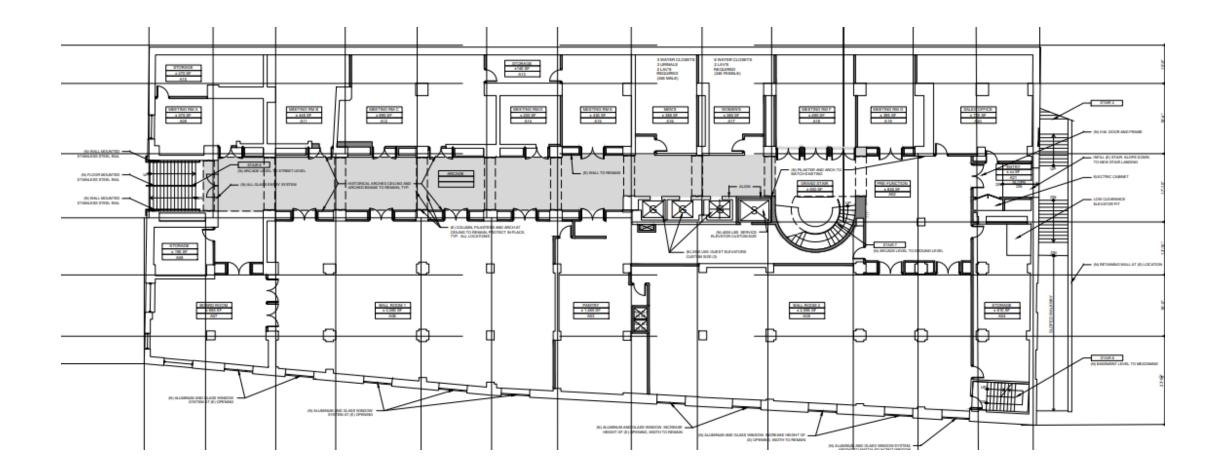
Structural

- ✓ Shear Walls Removed
- ✓ Shear Wall Strengthening Carbon Fiber Wrap
- ✓ Expand Shear Walls
- ✓ Pool: New Steel Columns over Existing
 Concrete Columns
- ✓ Pool Terrace: New Steel Beams & Concrete Filled Metal Deck
- ✓ New Elevator Structure: Cast In Place Concrete Tied to Existing Structure

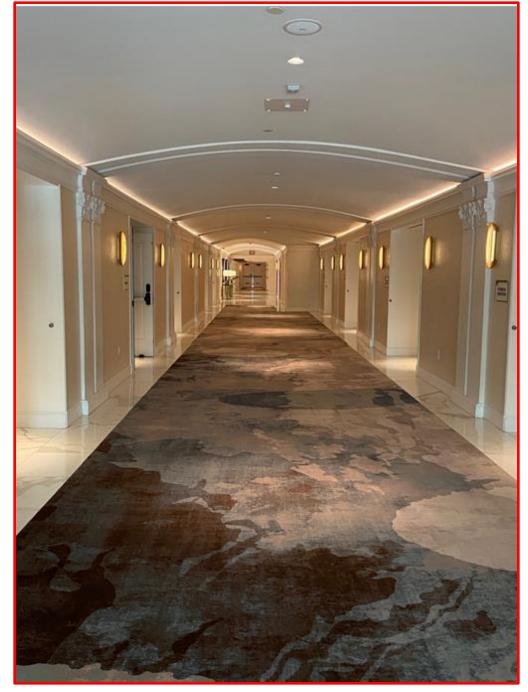


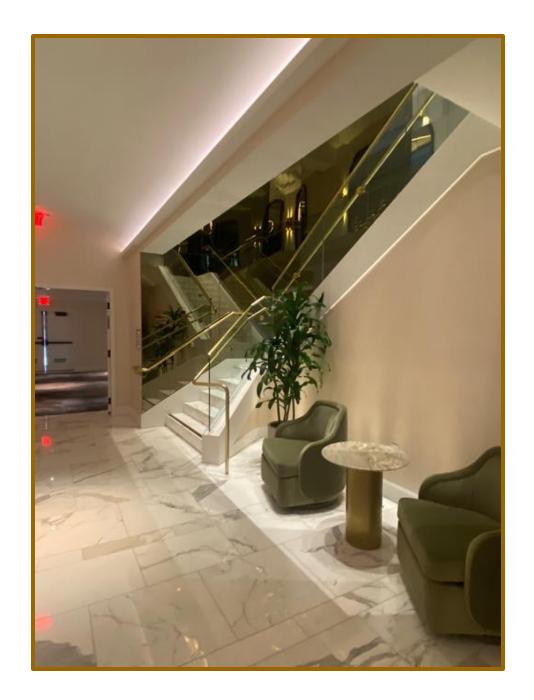
Code Modifications (Historical Considerations)

- ✓ Water Curtain Unprotected Openings
- ✓ Two Fire Water Line Connection to Fire Pump in Lieu Secondary Water Storage Tank
- ✓ Renovated Grand Staircase (Occ Load > 300) to open into a 1-Hour Corridor

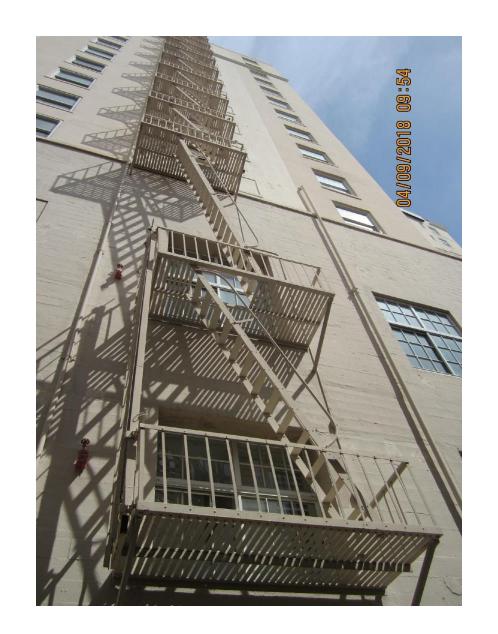


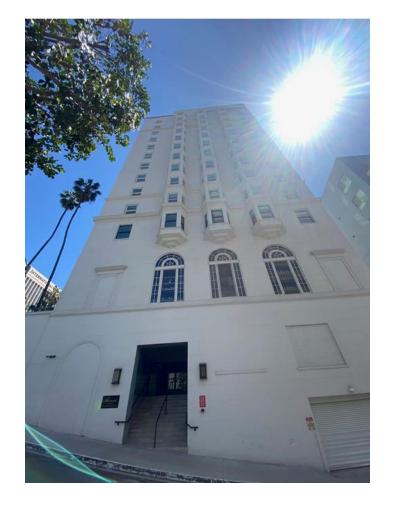
























COMPLETION OF ADAPTIVE REUSE: OPPORTUNITIES, BENEFITS, AND APPLICABILITY



Thank You!

KARIN LILJEGREN, FAIA
Omgivning Architecture
& Interiors

Daniel Zepeda, S.E. Degenkolb Engineers

RON TAKIGUCHI, P.E., CBO JAS Pacific

karin@omgivning.com

dzepeda@degenkolb.com

ron.takiguchi@jaspacific.com