Introducing …

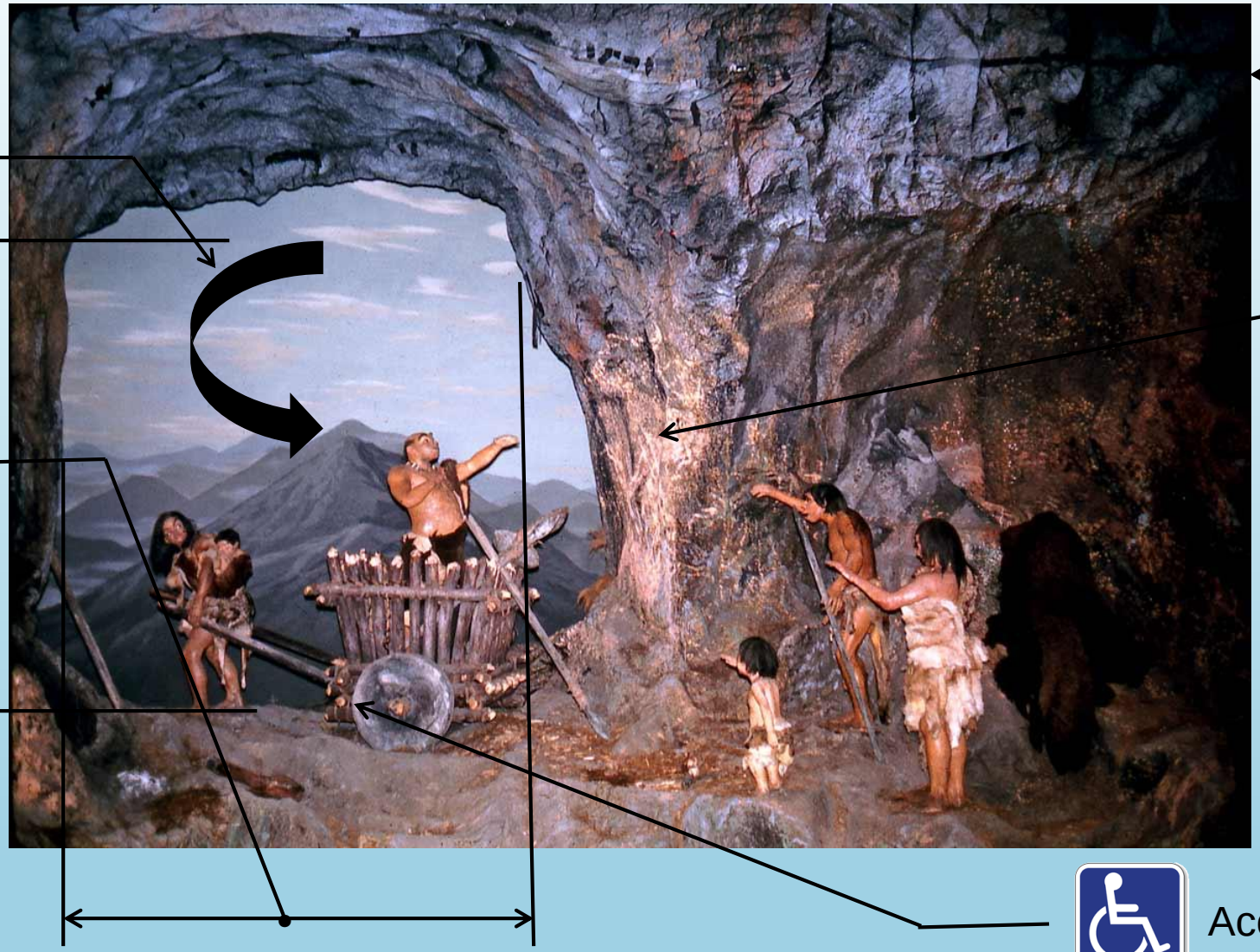
Remodel PLUS…

Clear Paths to Success
&
Working with Unknowns

To understand where codes and regulations are going you have to know where they've been

Provide outside ventilation and natural lighting

Opng. as req'd to accommodate Mastodon



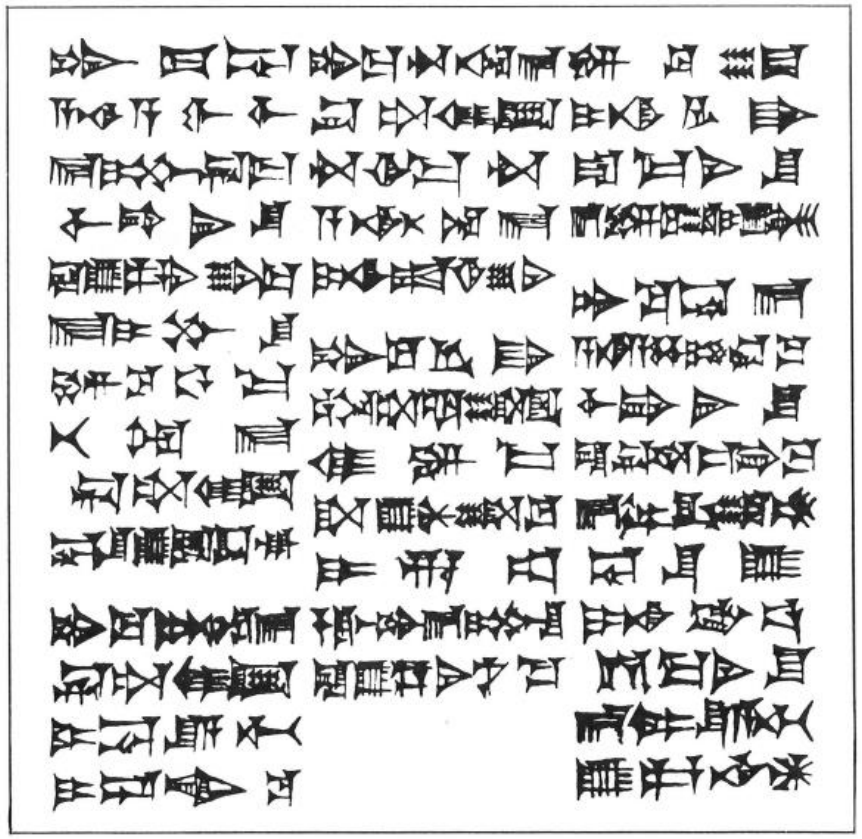
Rock structure designed for an factor of 1.5

Provide hard, durable, easily cleanable surface

Some historians think that building codes date back to prehistoric times. "Standards" (what worked and what didn't) were passed on by word of mouth.

Accessible entrance

- While building codes have a long history. what is generally accepted as the first published and enforceable building code was the Code of Hammurabi
- Early building codes were performance based



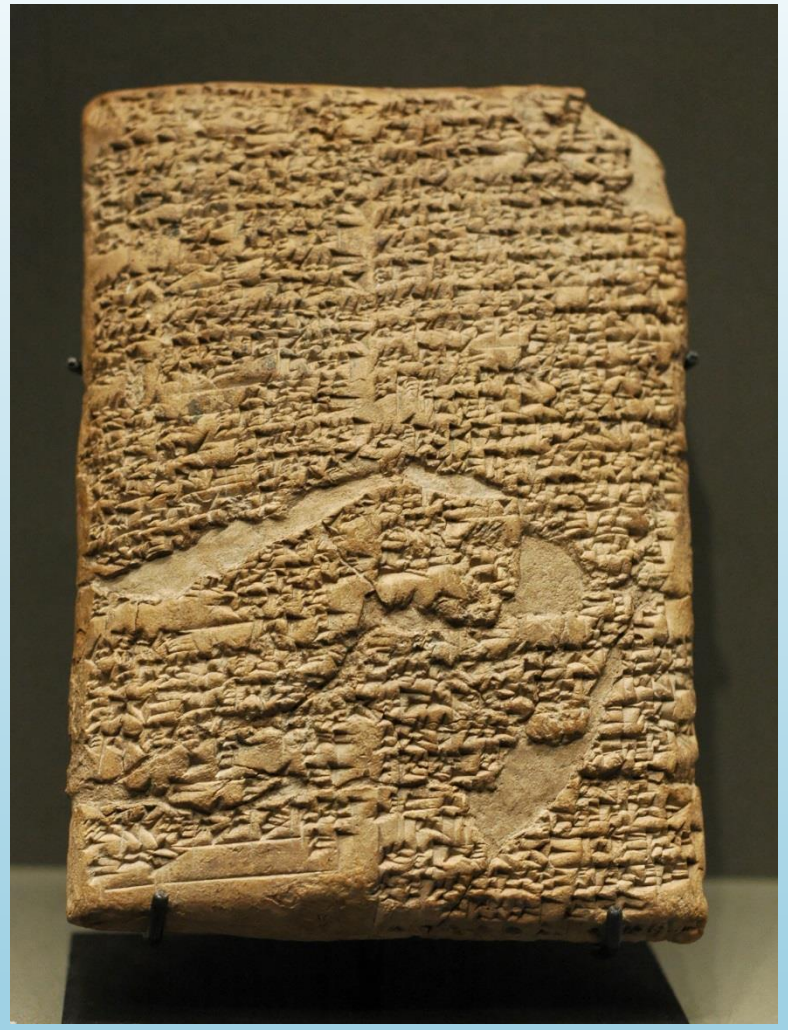
FROM THE CODE OF HAMMURABI (2200 B.C.)

If a builder builds a house for a man and does not make its construction firm and the house collapses and causes the death of the owner of the house — that builder shall be put to death. If it causes the death of a son of that owner — they shall put to death the son of that builder. If it causes the death of a slave of the owner — he shall give to the owner a slave of equal value.

If it destroys property — he shall restore whatever it destroyed and because he did not make the house firm he shall rebuild the house which collapsed at his own expense. If a builder builds a house and does not make its construction meet the requirements and a wall falls in — that builder shall strengthen the wall at his own expense.

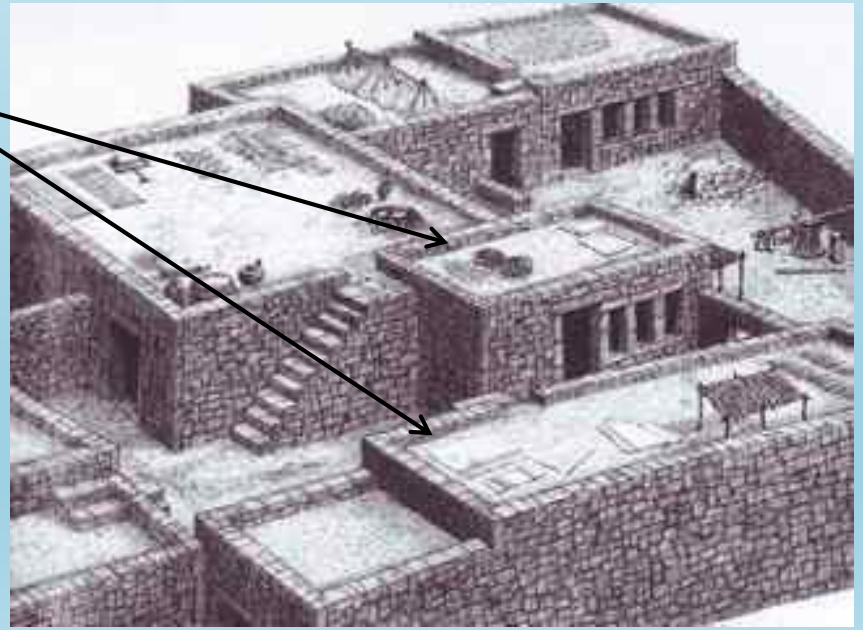
- Like any good code, it had an “exception”

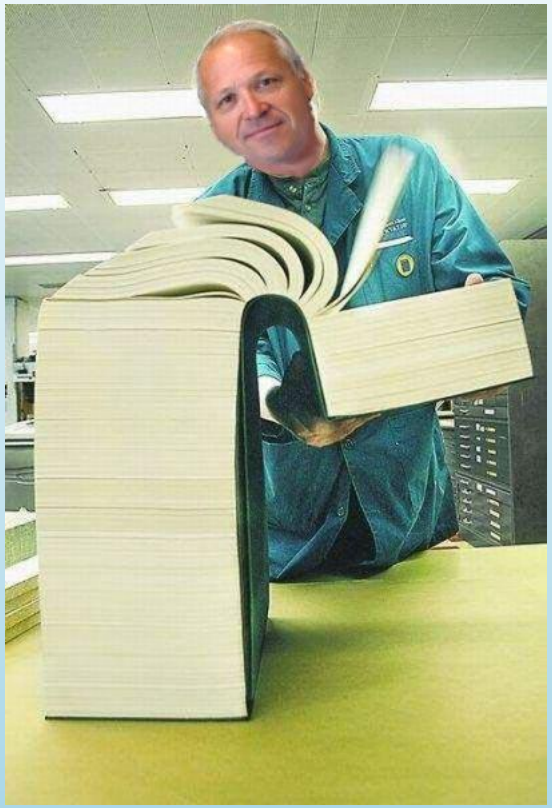
If any one bring an accusation against a man, and the accused go to the river and leap into the river, if he sink in the river his accuser shall take possession of his house. But if the river prove that the accused is not guilty, and he escape unhurt, then he who had brought the accusation shall be put to death, while he who leaped into the river shall take possession of the house that had belonged to his accuser.



- Building codes became more prescriptive
- The Law of Moses stipulated a specific construction requirement which is also an early form of a building code. The Bible book of Deuteronomy, chapter 22 verse 8, states:

"In case you build a new house, you must also make a parapet for your roof, that you may not place bloodguilt upon your house because someone falling might fall from it."





- Today the building codes are much more complex, especially for hospital buildings in California, and include both performance and prescriptive requirements as well as many reference documents

- Change happens – ten basic drivers
  1. Progress
  2. Development
  3. Technology
  4. Ideas
  5. Markets
  6. Cycles
  7. Conflict
  8. Power
  9. Evolution
  10. Chaos, Complexity, and Criticality

- Codes and Regulations Change
  - 2019 CBSC – Most, but not all, changes are less restrictive than the 2016 CBSC

In addition to the CBSC, FDD has C.A.N.s and P.I.N.s

What is a C.A.N. (Code Application Notice)

- HFSSA § 129851
- Code Application Notice – formal, enforceable interpretation of the California Building Standards Code

What is a P.I.N. (Policy Intent Notice)

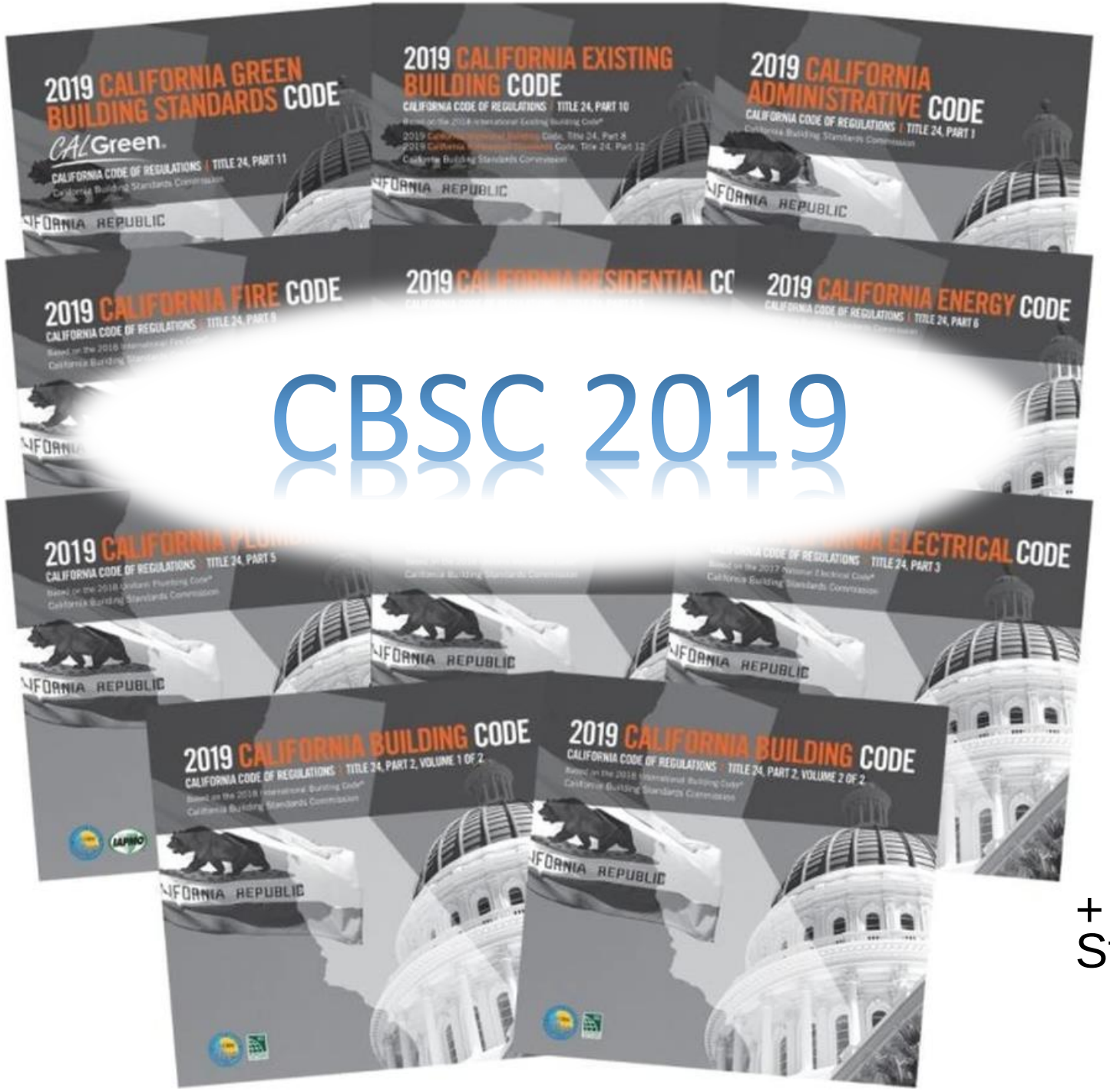
- Preliminary/proposed regulations to enact a new statutory requirement or program prior to formal adoption of a building standard or regulation
- Also used to formalize a voluntary program such as OSHPD Seismic Certification program (OSP), Phased Plan Review (PPR), etc.

http://oshpd.ca.gov/FDD/Regulations/pinscans.html

Today we are going to review OSHPD's C.A.N. 2 – 102.6 REMODELS

OBJECTIVES

- Where to Start
  - Culture, Communication & Processes
    - PINs, CANs & Other OSHPD Resources
      - Tips for Success



CBSC 2019

+ Reference Standards

AGENDA

I. **PROJECT INITIATION**

II. **IMPACTS *&* RESOURCES**

III. **INTRODUCTION to REMODEL CAN 2-102.6**
“*HEALTH FACILITY REMODEL FLOW CHART*”

IV. **PROJECT SCOPING, DESIGN & PERMITTING**

V. **CONSTRUCTION**

VI. **CONCLUDING THOUGHTS**

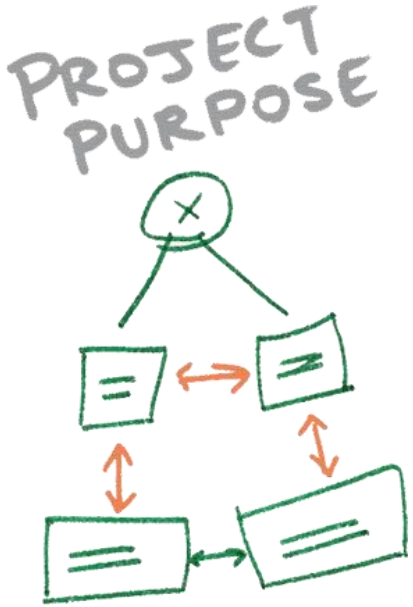
Remodel PLUS

I. Project Initiation

KEY OBJECTIVES PROJECT INTIATION

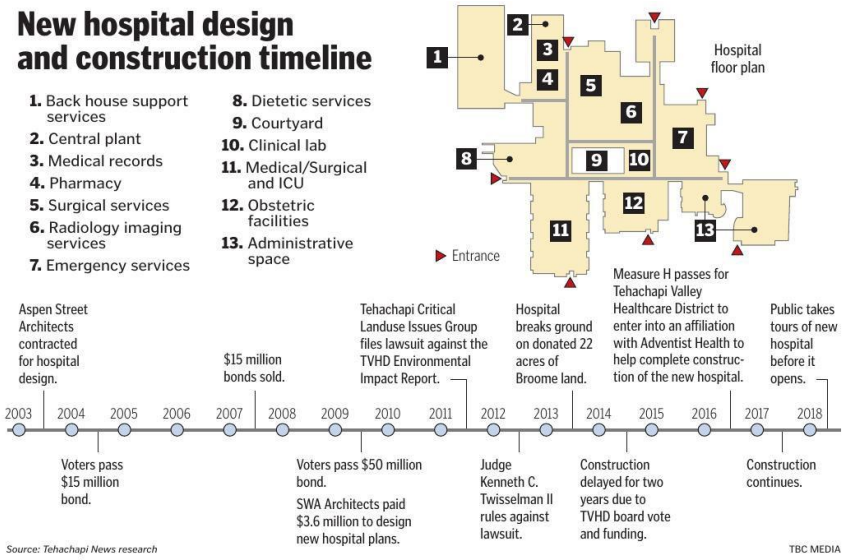
- **Define Project Intent**
- **Assess Existing Conditions**
- **Define Construction Delivery Model**
- **Assemble the Team**
- **Identify Project Constraints & Opportunities**

DEFINE PROJECT INTENT

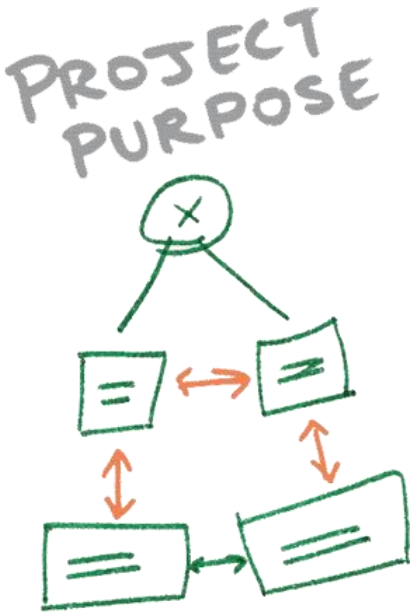


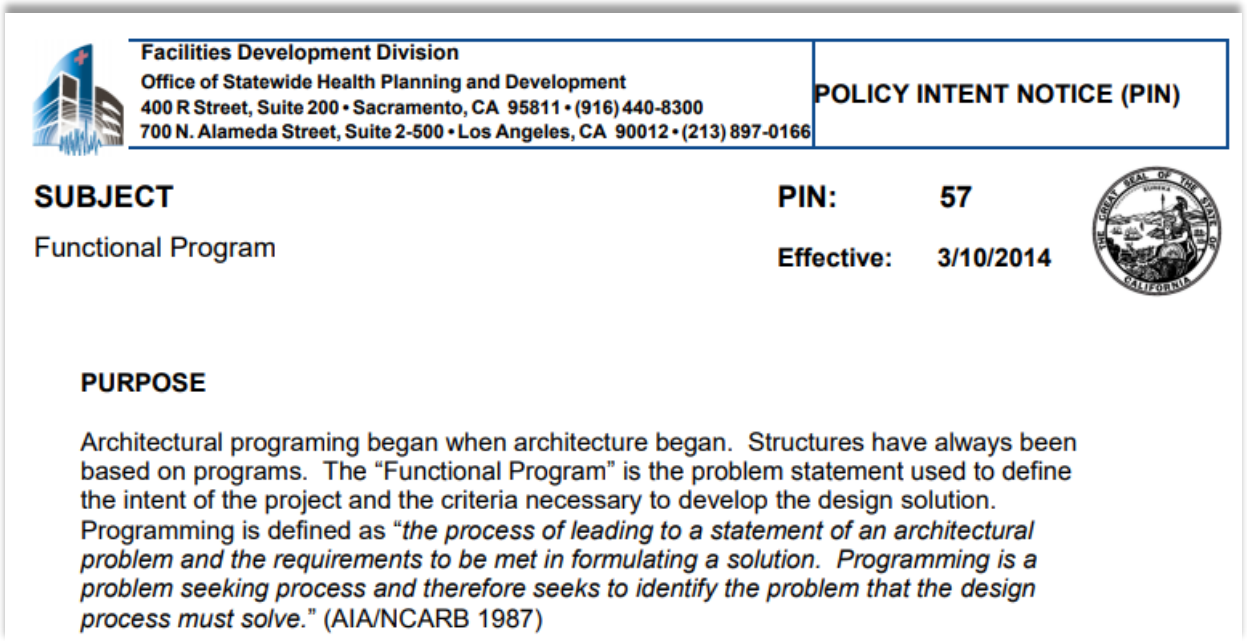
DEFINING PROJECT INTENT

Desired Scope and Parameters



DEFINE PROJECT INTENT - *PURPOSE*





Facilities Development Division
Office of Statewide Health Planning and Development
400 R Street, Suite 200 • Sacramento, CA 95811 • (916) 440-8300
700 N. Alameda Street, Suite 2-500 • Los Angeles, CA 90012 • (213) 897-0166

POLICY INTENT NOTICE (PIN)

SUBJECT

Functional Program

PIN: 57

Effective: 3/10/2014

PURPOSE

Architectural programing began when architecture began. Structures have always been based on programs. The "Functional Program" is the problem statement used to define the intent of the project and the criteria necessary to develop the design solution. Programming is defined as "*the process of leading to a statement of an architectural problem and the requirements to be met in formulating a solution. Programming is a problem seeking process and therefore seeks to identify the problem that the design process must solve.*" (AIA/NCARB 1987)

- **Functional Program Summary Statement (CAC 7-119)**
- **Psychiatric Functional Program requires a Patient Safety Risk Assessment (CBC 1228.2.1 & CAC 7-119(c), item 9)**

DEFINE PROJECT INTENT - *SCOPE*

- **Feasibility Analysis**

- **Identify Constraints and Plan for Progress**

DEFINE PROJECT INTENT - *SCOPE*

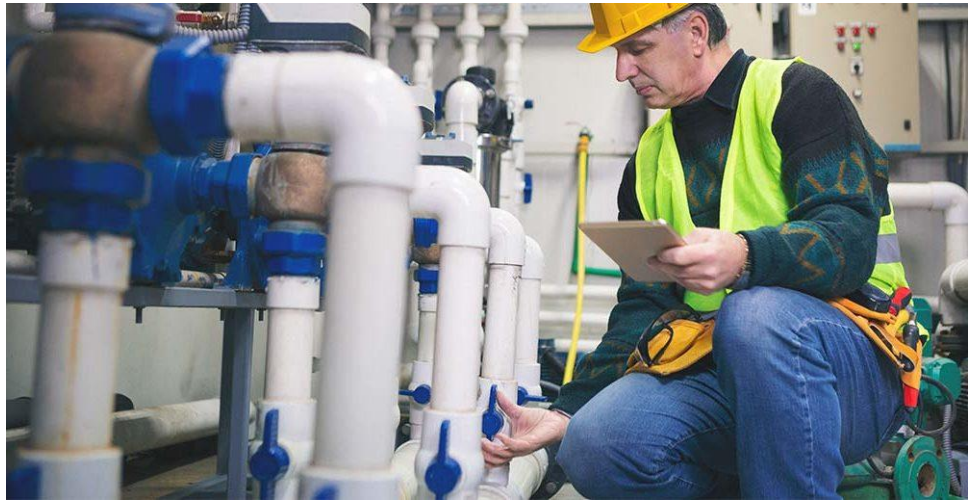
Client's Vision

Understand Full Scope

Budget Applied

Design Team's Proposal

ASSESS EXISTING CONDITIONS - *PEOPLE*



- **Check with Facility Team:**
  - **Engineering Services**
  - **Onsite IOR(s)**
  - **Onsite Contractor(s)**

“Trust but verify.”

President Ronald Reagan

ASSESS EXISTING CONDITIONS - *RECORDS*

- **Previous TIO Reports**

OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION – www.oshpd.ca.gov/fdd
400 R Street, Suite 200 ~ Sacramento, California 95811
700 N. Alameda Street, Suite 2-500 ~ Los Angeles, California 90012
Phone (916) 440-8300 FAX (916) 324-9188
Phone (213) 897-0166 FAX (213) 897-0168

Testing, Inspection and Observation Program
2016 California Building Standards Code – OSHPD 1

This program is prepared and submitted for an OSHPD 1 project. OSHPD 1 projects include all construction and remodel projects for general acute-care hospitals and acute psychiatric hospitals. OSHPD 1 projects also include construction and remodel of skilled nursing facilities and/or intermediate care facilities except those of single-story, Type V, wood or light steel frame construction.

SECTION A			
Facility #:	Facility Name:	PROJECT INFORMATION	
		Project #:	Sub #:
Street Address:			
City:			
Record Name (Scope of Project):	County:		

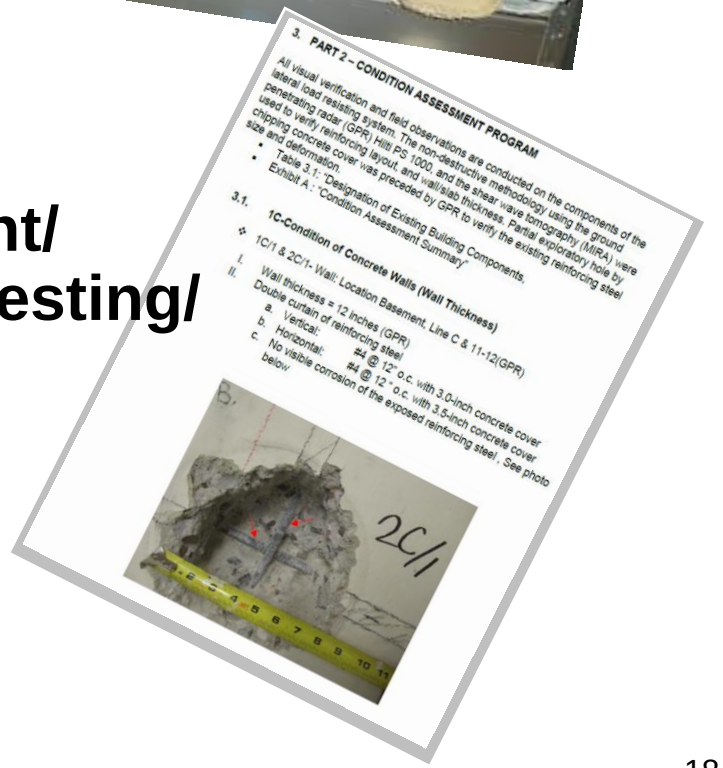
Abbreviations:
CAC: California Administrative Code CBC: California Building Code RDP: Registered Design Professional

Version: R02.3

- **As-built Drawings/ Record Drawings**

- **Historic Facility Documentation/ Archives**

- **Condition Assessment/ Materials Testing/ Surveys**



3. PART 2 – CONDITION ASSESSMENT PROGRAM

All visual verification and field observations are conducted on the components of the lateral load resisting system. The non-destructive methodology using the ground penetrating radar (GPR) Hilti PS 1000, and the shear wave tomography (MIRA) were used to verify reinforcing layout, and wall/slab thickness. Partial exploratory hole by chipping concrete cover was preceded by GPR to verify the existing reinforcing steel size and deformation.

- Table 3.1: "Designation of Existing Building Components.
- Exhibit A : "Condition Assessment Summary"

3.1. **1C-Condition of Concrete Walls (Wall Thickness)**

- 1C/1 & 2C/1- Wall: Location Basement. Line C & 11-12(GPR)

I. Wall thickness = 12 inches (GPR)
II. Double curtain of reinforcing steel
a. Vertical: #4 @ 12" o.c. with 3.0-inch concrete cover
b. Horizontal: #4 @ 12 " o.c. with 3.5-inch concrete cover
c. No visible corrosion of the exposed reinforcing steel , See photo below

ASSESS EXISTING CONDITIONS - *OSHPD*

- **Public Record Requests**
  - OSHPD Website/Public Records
  - Any person may receive a copy of any identifiable public record or reasonably segregable portion thereof unless that record is exempt from disclosure.
  - OSHPD Archives vs. State Archives

- Health and Safety Code § 129853 Hospital Construction Document Request

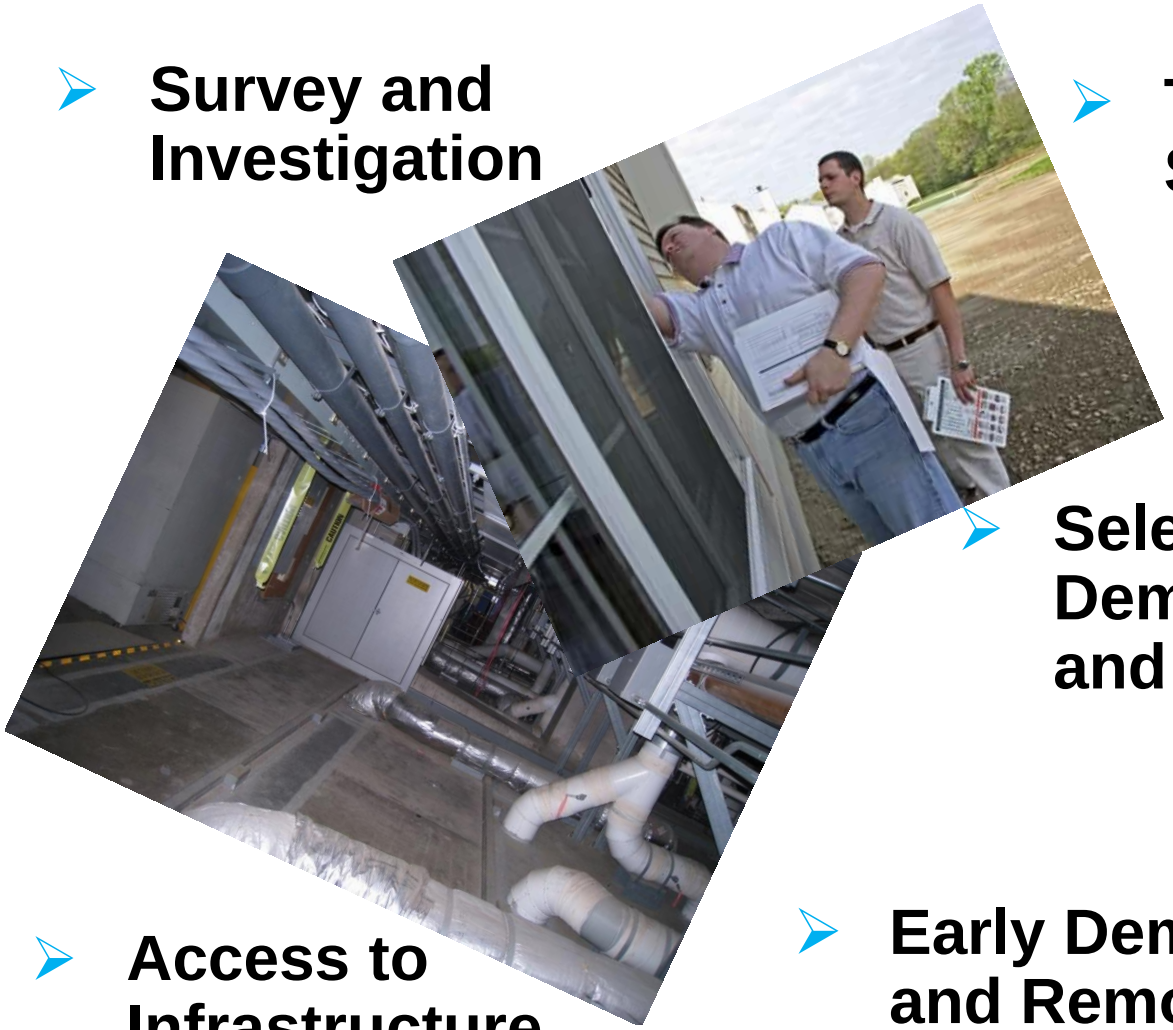
(a) The person or entity requesting a copy of construction documents maintained by the office shall bear the actual cost of producing the copy of those documents

(b) The office shall provide an estimate of the costs described in subdivision (a) to the requester before the office begins to make those copies.

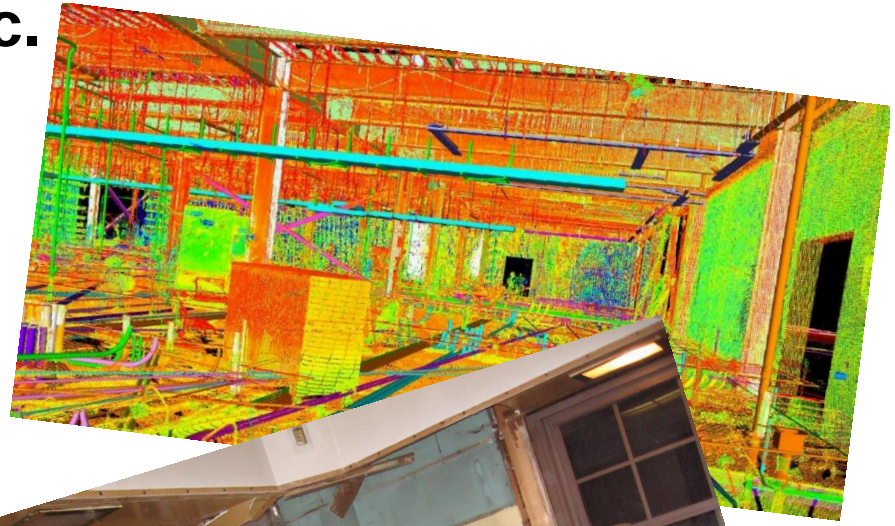
- https://oshpd.ca.gov/home/public-transparency/public-records/

ASSESS EXISTING CONDITIONS - *SITE*

- **Survey and Investigation**



- **Technological Tools: Photography, Scanners, etc.**



- **Selective Demolition and Repair?**

- **Access to Infrastructure**
- **Early Demolition and Removal**

ASSESS EXISTING CONDITIONS - *CONSTRAINTS*

Abatement (Asbestos, Lead, Mold)

Investigation

- What needs to be looked at
  - Demo
  - New
  - Surrounding Area
  - Create an accurate scope for a durable budget.
- Investigation should include
  - Verification of Points of Connection
  - Possible Laser Scan if the space is conducive.
  - 360 Camera images for future references
  - Investigation team for remodels should include
    - GC, MEP & Architect.
      - Case Example
  - If investigating a CUP, major MEP equipment or structural components, it is found to be hugely beneficial to include the Engineer of Record during the site investigation

ASSESS EXISTING CONDITIONS - UNAUTHORIZED WORK

- **Unauthorized Work (CAC 7-128)**
  - "U" Project
  - T&M
  - May delay current project
  - May restrict future projects

ASSESS EXISTING CONDITIONS - *CONSTRAINTS*

Inaccessible Space or Feature

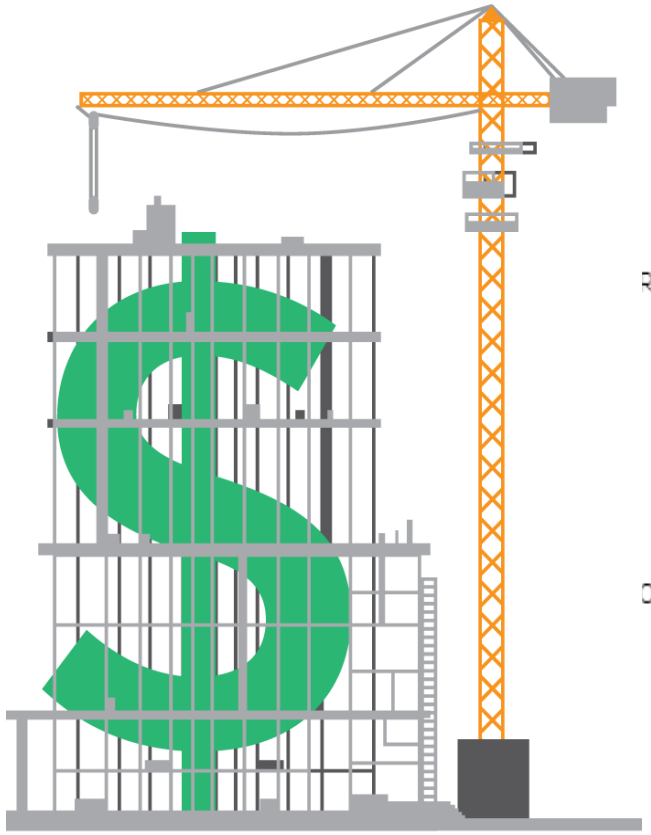
ASSESS EXISTING CONDITIONS… *OR NOT?*

Potential Consequences

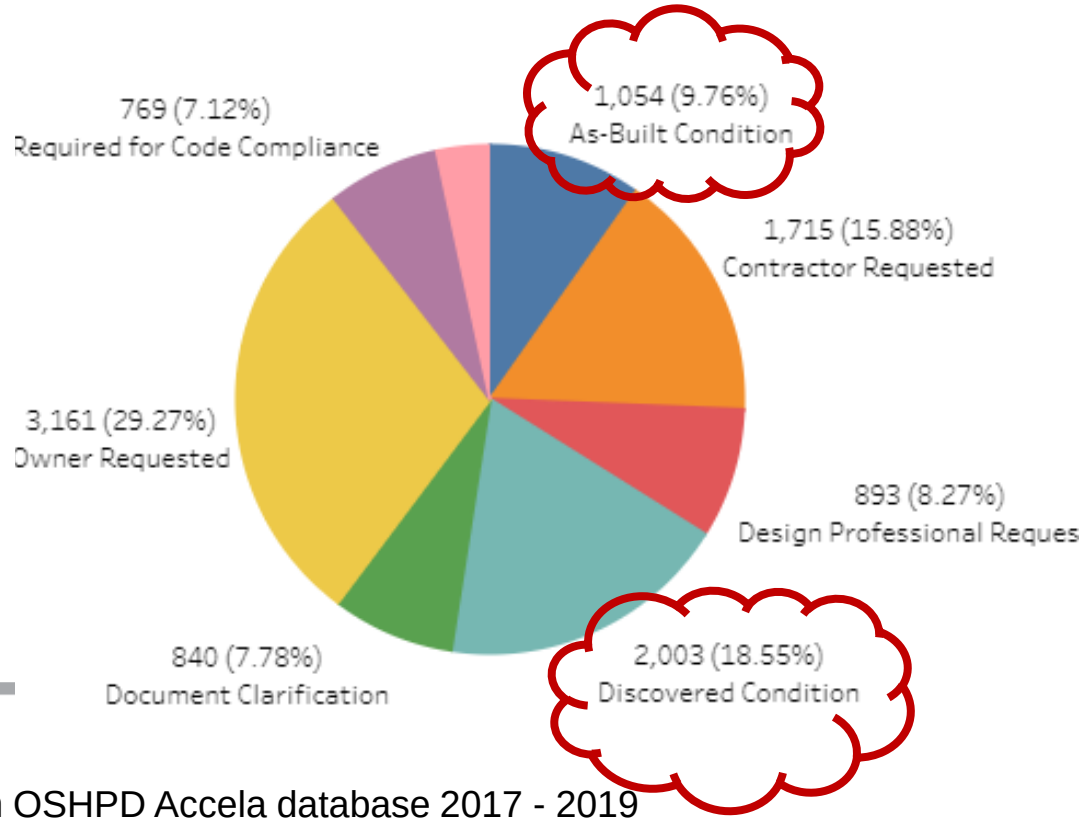
- **Unanticipated Discovered Conditions**
- **Increased Change Orders**

….Leads To:

- **Time Delays**
- **Added Costs**
- **Compromised Outcomes**



Remodels



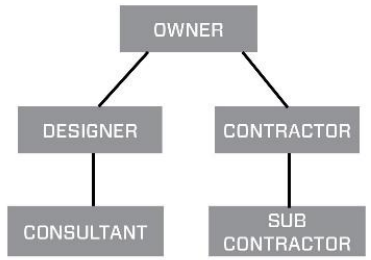
Data from OSHPD Accela database 2017 - 2019

DEFINE CONSTRUCTION DELIVERY MODEL

PROJECT DELIVERY MODEL TYPES

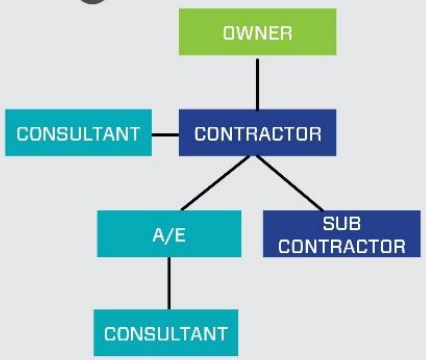
TRADITIONAL MODEL

Design-Bid-Build

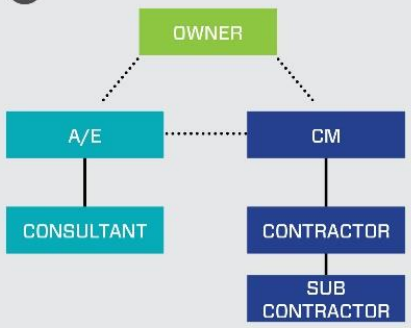


ALTERNATIVE MODELS

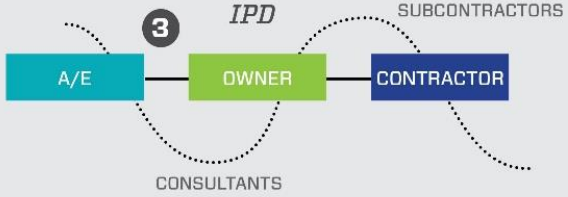
1 *Design-Build*



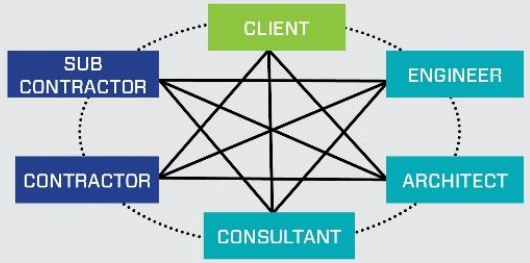
2 *Construction Management*



3 *IPD*



4 *Hybrid*



ASSEMBLE THE TEAM

- **Roles & Responsibilities**
- **Communications Protocols**
- **Processes**
- **Culture of Teamwork**

- **CHOOSING OPTIMUM PRACTICES OVER INHERITED METHODS**

Moving away from “We’ve always done it this way…”

IDENTIFY PROJECT CONSTRAINTS & OPPORTUNITIES

- Identification of SWOT (Strength Weakness Opportunities and Threats) items so that the team can prioritize their attention.

Strength:

Building is SPC-5

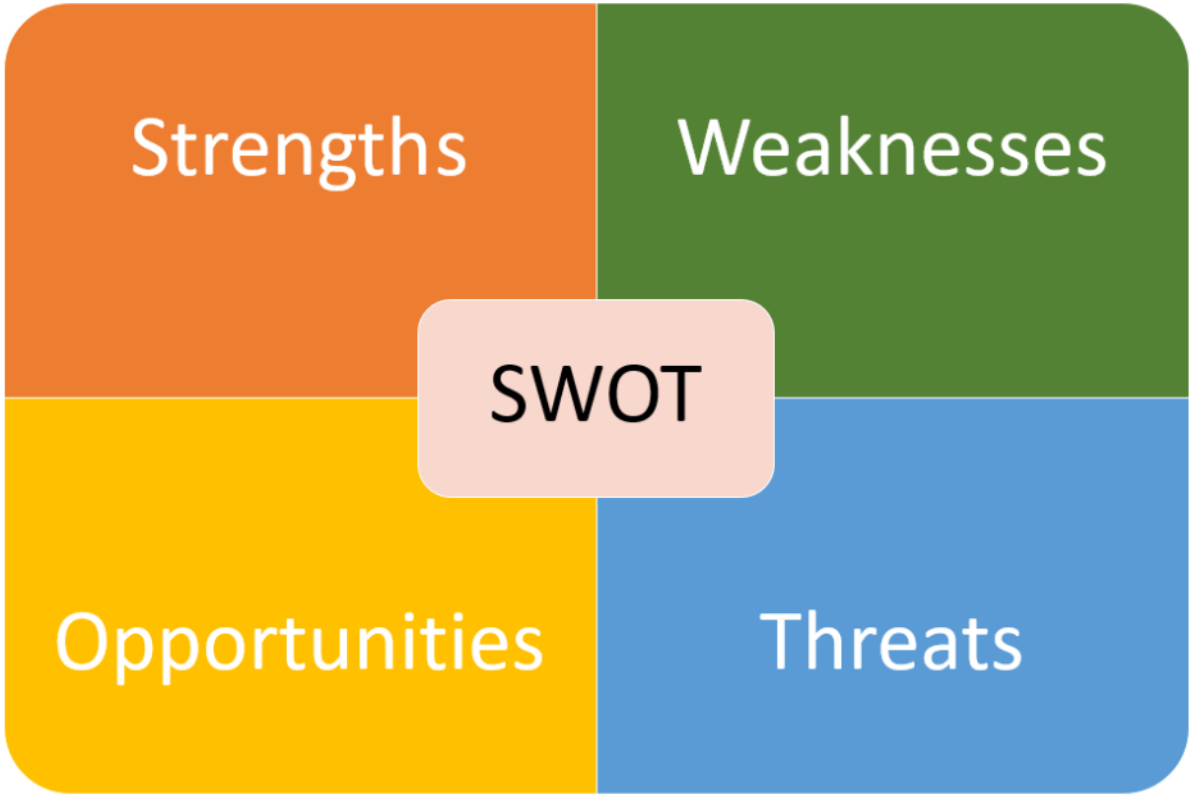
Path of Travel to project location is compliant

Opportunities:

OSHPD staff prepared to partner on the project

Potential use of innovations or new technologies

Flexible/more receptive existing building systems



Weaknesses:

No as-built drawings are available

Restricted access to project area

Unrealistic expectations, e.g. inadequate budget

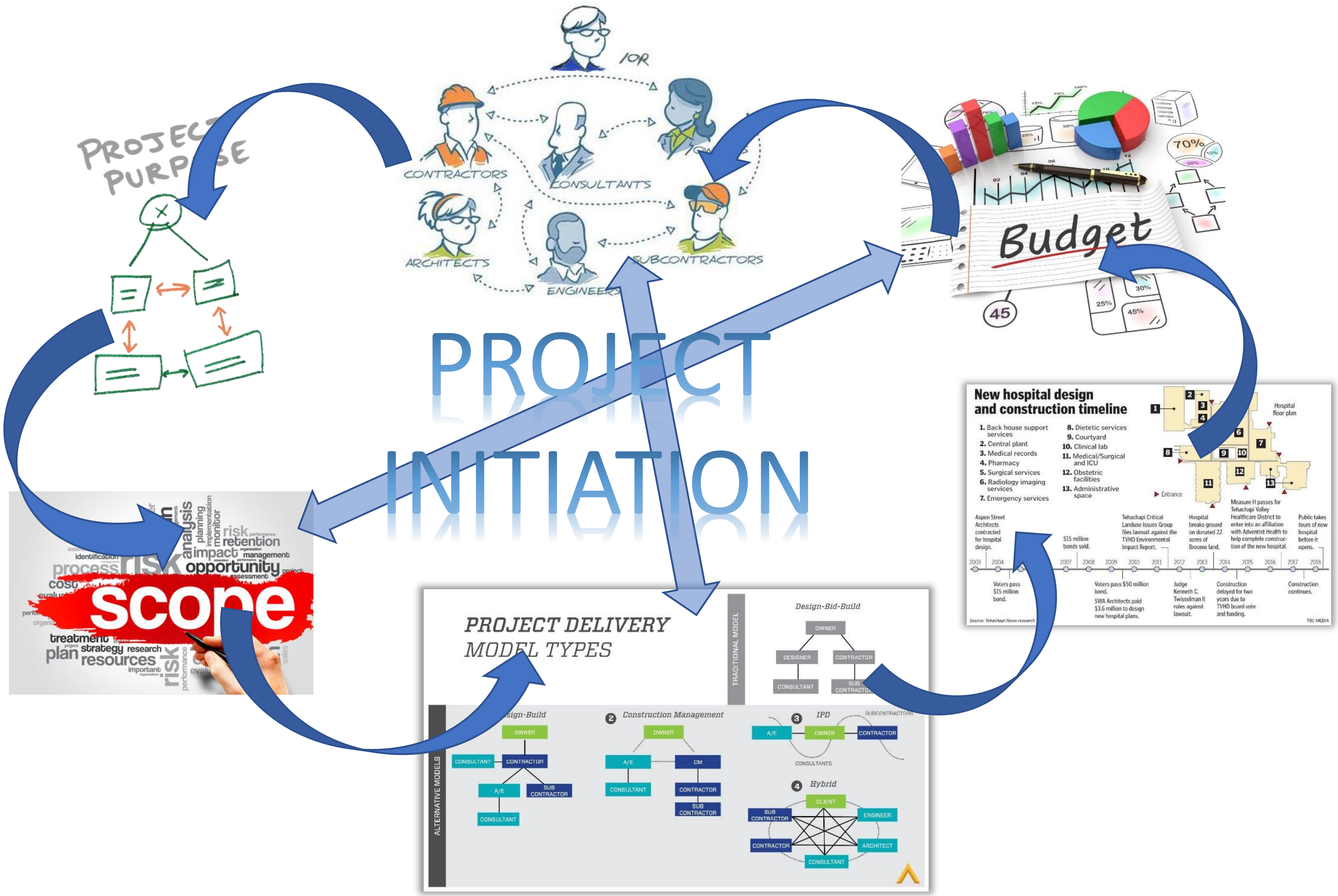
Entitlements, such as local jurisdiction and/or community Issues

Threats:

Accessibility compliance retroactively for two code cycles

Uninformed key stakeholders

Unauthorized Work


PROJECT INITIATION
PROJECT PURPOSE
/OR
CONTRACTORS
CONSULTANTS
ARCHITECTS
ENGINEERS
SUBCONTRACTORS
Budget
New hospital design and construction timeline
scope
risk
opportunity
PROJECT DELIVERY MODEL TYPES
Design-Bid-Build
Construction Management
IPD
Hybrid
TRADITIONAL MODEL
ALTERNATIVE MODELS
OWNER
DESIGNER
CONTRACTOR
CONSULTANT
ENGINEER
ARCHITECT
CLIENT

Remodel PLUS

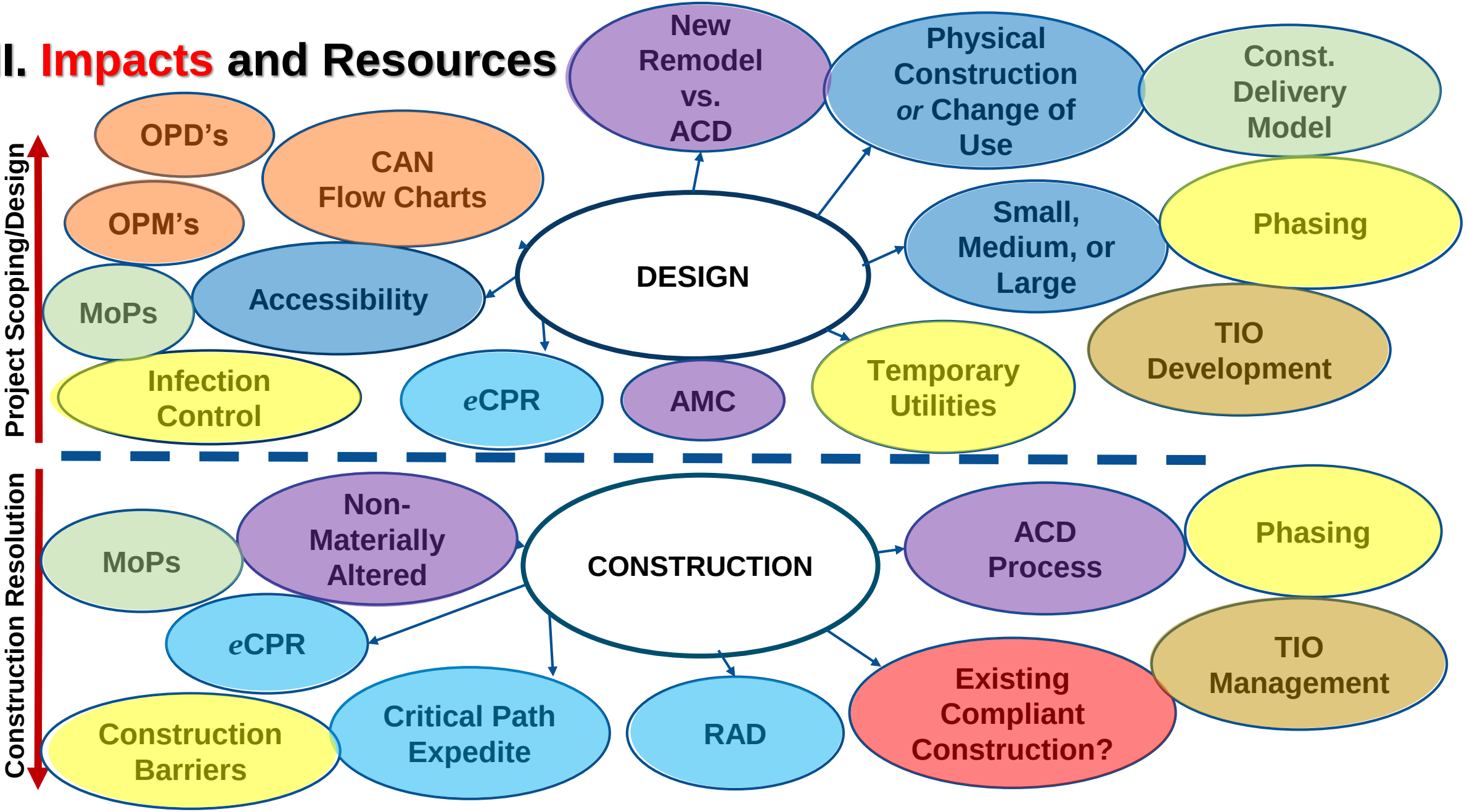
II. Impacts and Resources

KEY OBJECTIVES

IMPACTS AND RESOURCES

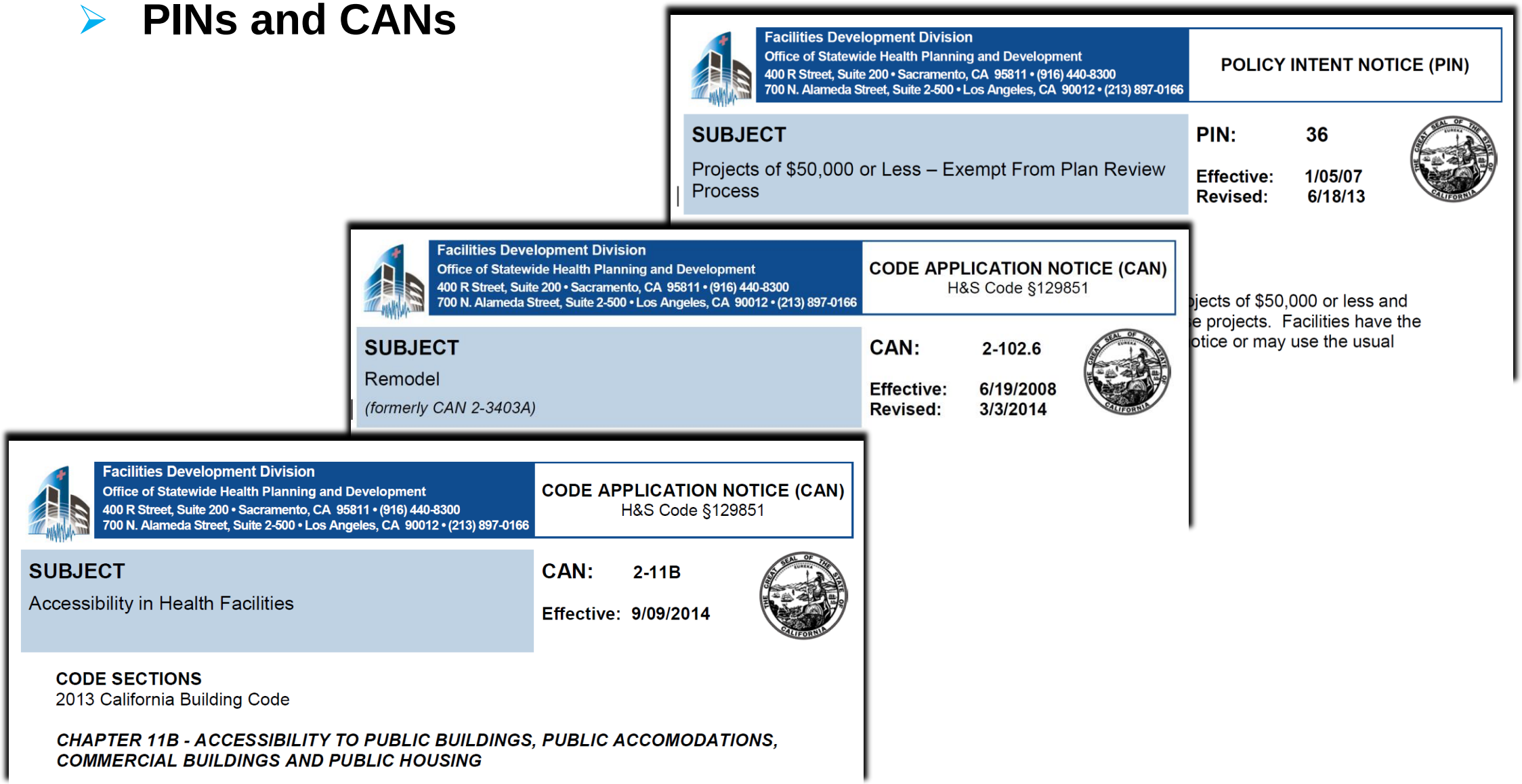
- **Identify Project Drivers**
- **Available OSHPD Resources**
  - PINs and CANs
  - TIO
  - RACS
  - OPMs, OPSs and OPLs
  - Preapproved Details (OSHPD and Facility)
  - FREER Manual
  - Guides

II. Impacts and Resources



OSHPD RESOURCES

- **PINs and CANs**



Facilities Development Division
Office of Statewide Health Planning and Development
400 R Street, Suite 200 • Sacramento, CA 95811 • (916) 440-8300
700 N. Alameda Street, Suite 2-500 • Los Angeles, CA 90012 • (213) 897-0166

POLICY INTENT NOTICE (PIN)

SUBJECT
Projects of $50,000 or Less – Exempt From Plan Review Process

PIN: 36
Effective: 1/05/07
Revised: 6/18/13

ojects of $50,000 or less and
e projects. Facilities have the
otice or may use the usual

Facilities Development Division
Office of Statewide Health Planning and Development
400 R Street, Suite 200 • Sacramento, CA 95811 • (916) 440-8300
700 N. Alameda Street, Suite 2-500 • Los Angeles, CA 90012 • (213) 897-0166

CODE APPLICATION NOTICE (CAN)
H&S Code §129851

SUBJECT
Remodel
(formerly CAN 2-3403A)

CAN: 2-102.6
Effective: 6/19/2008
Revised: 3/3/2014

Facilities Development Division
Office of Statewide Health Planning and Development
400 R Street, Suite 200 • Sacramento, CA 95811 • (916) 440-8300
700 N. Alameda Street, Suite 2-500 • Los Angeles, CA 90012 • (213) 897-0166

CODE APPLICATION NOTICE (CAN)
H&S Code §129851

SUBJECT
Accessibility in Health Facilities

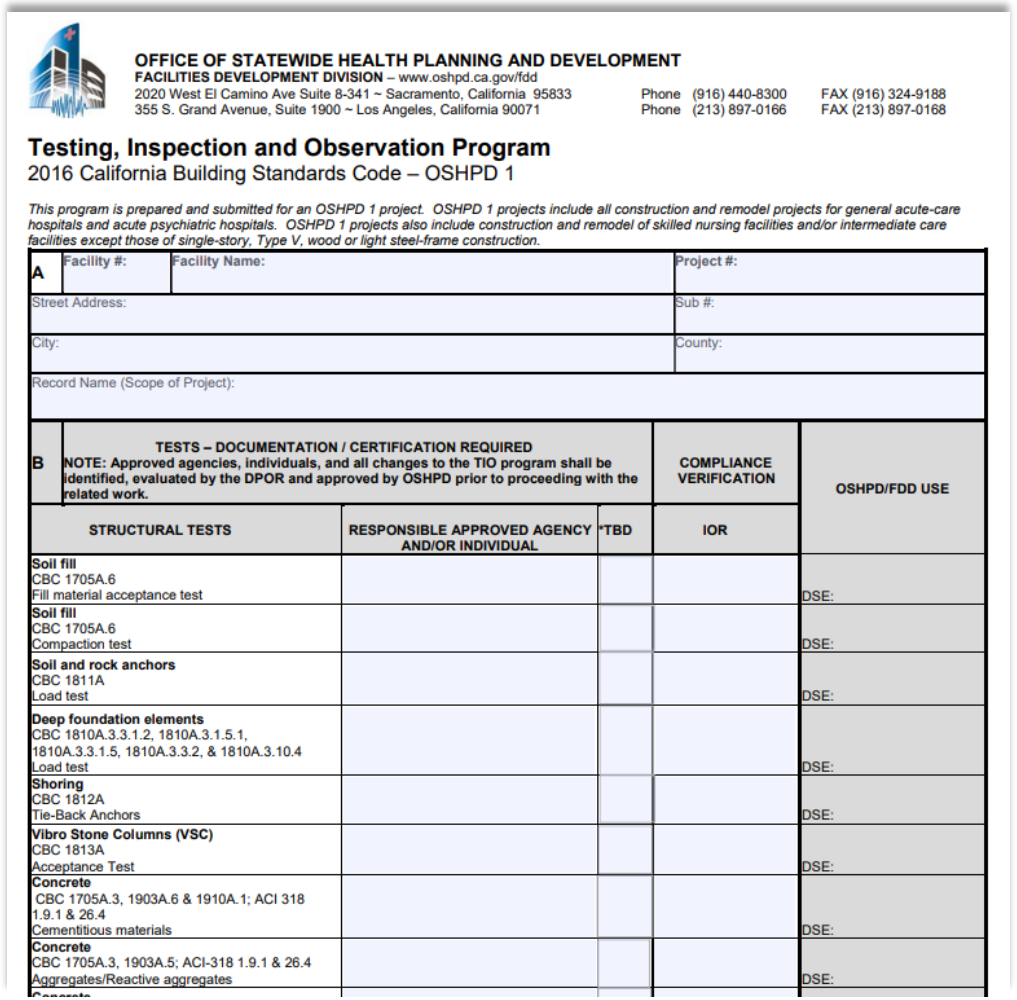
CAN: 2-11B
Effective: 9/09/2014

CODE SECTIONS
2013 California Building Code

CHAPTER 11B - ACCESSIBILITY TO PUBLIC BUILDINGS, PUBLIC ACCOMODATIONS, COMMERCIAL BUILDINGS AND PUBLIC HOUSING

OSHPD RESOURCES

- **Testing, Inspection and Observation Program**
  - Prepared by Design Professional of Record
  - Development
  - Controlled by AOR or EOR



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION – www.oshpd.ca.gov/fdd
2020 West El Camino Ave Suite 8-341 ~ Sacramento, California 95833 Phone (916) 440-8300 FAX (916) 324-9188
355 S. Grand Avenue, Suite 1900 ~ Los Angeles, California 90071 Phone (213) 897-0166 FAX (213) 897-0168

Testing, Inspection and Observation Program
2016 California Building Standards Code – OSHPD 1

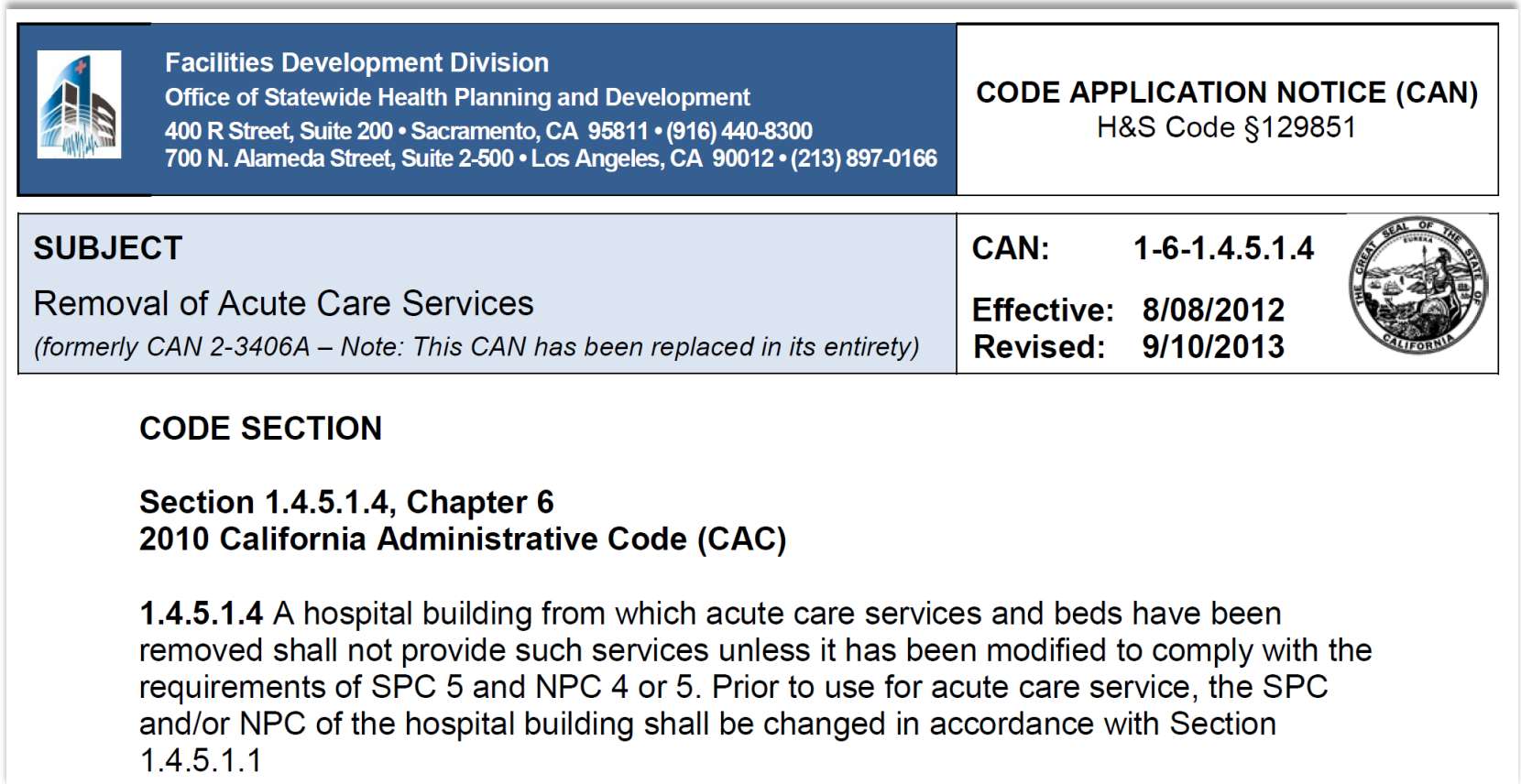
This program is prepared and submitted for an OSHPD 1 project. OSHPD 1 projects include all construction and remodel projects for general acute-care hospitals and acute psychiatric hospitals. OSHPD 1 projects also include construction and remodel of skilled nursing facilities and/or intermediate care facilities except those of single-story, Type V, wood or light steel-frame construction.

A	Facility #:	Facility Name:	Project #:
	Street Address:		Sub #:
	City:		County:
	Record Name (Scope of Project):		

B	TESTS – DOCUMENTATION / CERTIFICATION REQUIRED NOTE: Approved agencies, individuals, and all changes to the TIO program shall be identified, evaluated by the DPOR and approved by OSHPD prior to proceeding with the related work.		COMPLIANCE VERIFICATION	OSHPD/FDD USE
	STRUCTURAL TESTS	RESPONSIBLE APPROVED AGENCY AND/OR INDIVIDUAL	*TBD	IOR	
	Soil fill CBC 1705A.6 Fill material acceptance test				DSE:
	Soil fill CBC 1705A.6 Compaction test				DSE:
	Soil and rock anchors CBC 1811A Load test				DSE:
	Deep foundation elements CBC 1810A.3.3.1.2, 1810A.3.1.5.1, 1810A.3.3.1.5, 1810A.3.3.2, & 1810A.3.10.4 Load test				DSE:
	Shoring CBC 1812A Tie-Back Anchors				DSE:
	Vibro Stone Columns (VSC) CBC 1813A Acceptance Test				DSE:
	Concrete CBC 1705A.3, 1903A.6 & 1910A.1; ACI 318 1.9.1 & 26.4 Cementitious materials				DSE:
	Concrete CBC 1705A.3, 1903A.5; ACI-318 1.9.1 & 26.4 Aggregates/Reactive aggregates				DSE:

OSHPD RESOURCES

Removal of Acute Care Services (RACS)



Facilities Development Division
Office of Statewide Health Planning and Development
400 R Street, Suite 200 • Sacramento, CA 95811 • (916) 440-8300
700 N. Alameda Street, Suite 2-500 • Los Angeles, CA 90012 • (213) 897-0166

CODE APPLICATION NOTICE (CAN)
H&S Code §129851

SUBJECT

Removal of Acute Care Services

(formerly CAN 2-3406A – Note: This CAN has been replaced in its entirety)

CAN: 1-6-1.4.5.1.4

Effective: 8/08/2012
Revised: 9/10/2013

CODE SECTION

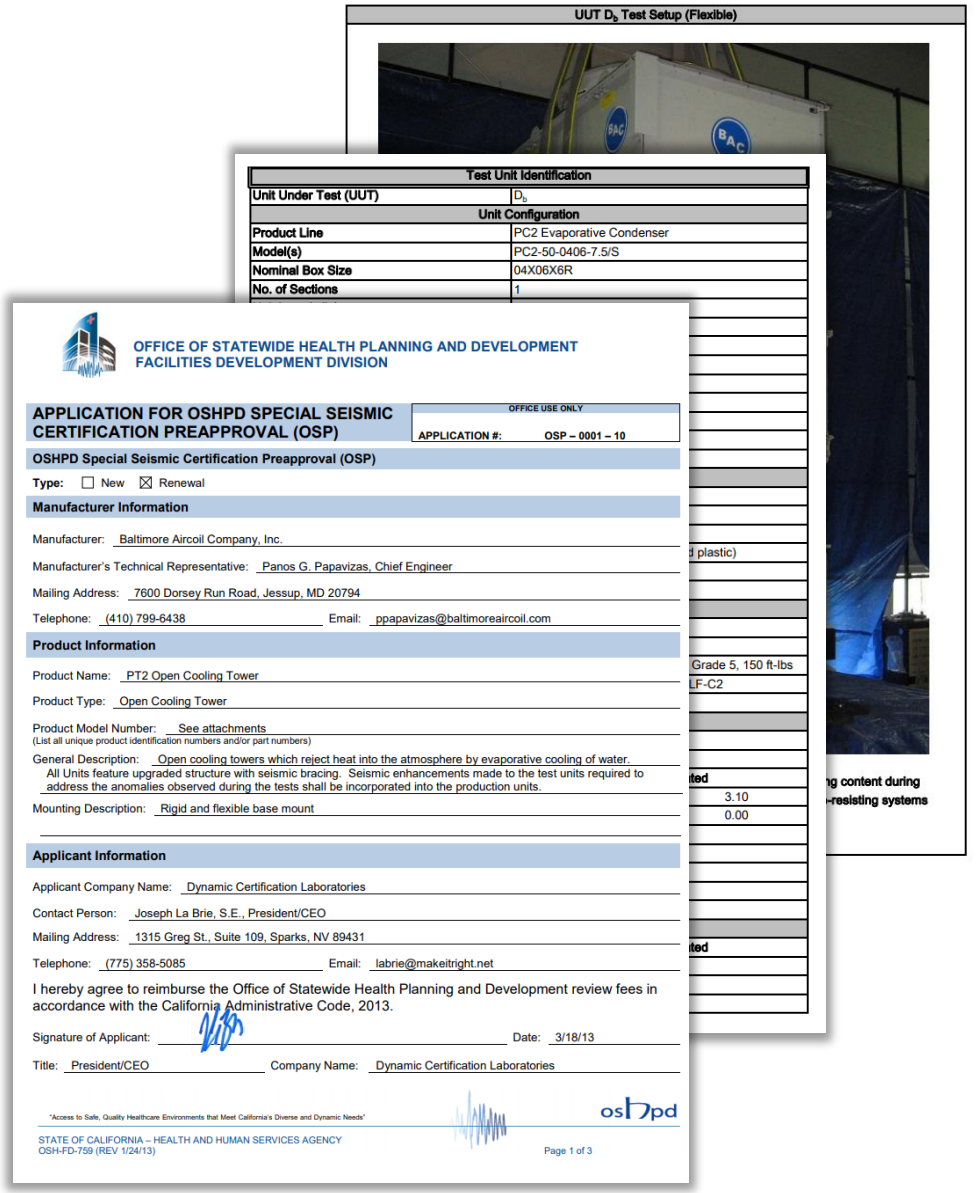
Section 1.4.5.1.4, Chapter 6
2010 California Administrative Code (CAC)

1.4.5.1.4 A hospital building from which acute care services and beds have been removed shall not provide such services unless it has been modified to comply with the requirements of SPC 5 and NPC 4 or 5. Prior to use for acute care service, the SPC and/or NPC of the hospital building shall be changed in accordance with Section 1.4.5.1.1

OSHPD RESOURCES

- **OSHPD Preapproved Manufacturer**
- **OSHPD Preapproved Details**
- **OSHPD Special Seismic Certification Preapproval**
- **Preapproved Laboratory**

No substitutions of products!



UUT D_b Test Setup (Flexible)

Test Unit Identification	
Unit Under Test (UUT)	D_b
Unit Configuration	
Product Line	PC2 Evaporative Condenser
Model(s)	PC2-50-0406-7.5/S
Nominal Box Size	04X06X6R
No. of Sections	1

OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR OSHPD SPECIAL SEISMIC CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY
APPLICATION #: OSP – 0001 – 10

OSHPD Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ Renewal

Manufacturer Information

Manufacturer: Baltimore Aircoil Company, Inc.
Manufacturer's Technical Representative: Panos G. Papavizas, Chief Engineer
Mailing Address: 7600 Dorsey Run Road, Jessup, MD 20794
Telephone: (410) 799-6438 Email: ppapavizas@baltimoreaircoil.com

Product Information

Product Name: PT2 Open Cooling Tower
Product Type: Open Cooling Tower
Product Model Number: See attachments
(List all unique product identification numbers and/or part numbers)
General Description: Open cooling towers which reject heat into the atmosphere by evaporative cooling of water. All Units feature upgraded structure with seismic bracing. Seismic enhancements made to the test units required to address the anomalies observed during the tests shall be incorporated into the production units.
Mounting Description: Rigid and flexible base mount

Applicant Information

Applicant Company Name: Dynamic Certification Laboratories
Contact Person: Joseph La Brie, S.E., President/CEO
Mailing Address: 1315 Greg St., Suite 109, Sparks, NV 89431
Telephone: (775) 358-5085 Email: labrie@makeitright.net

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2013.

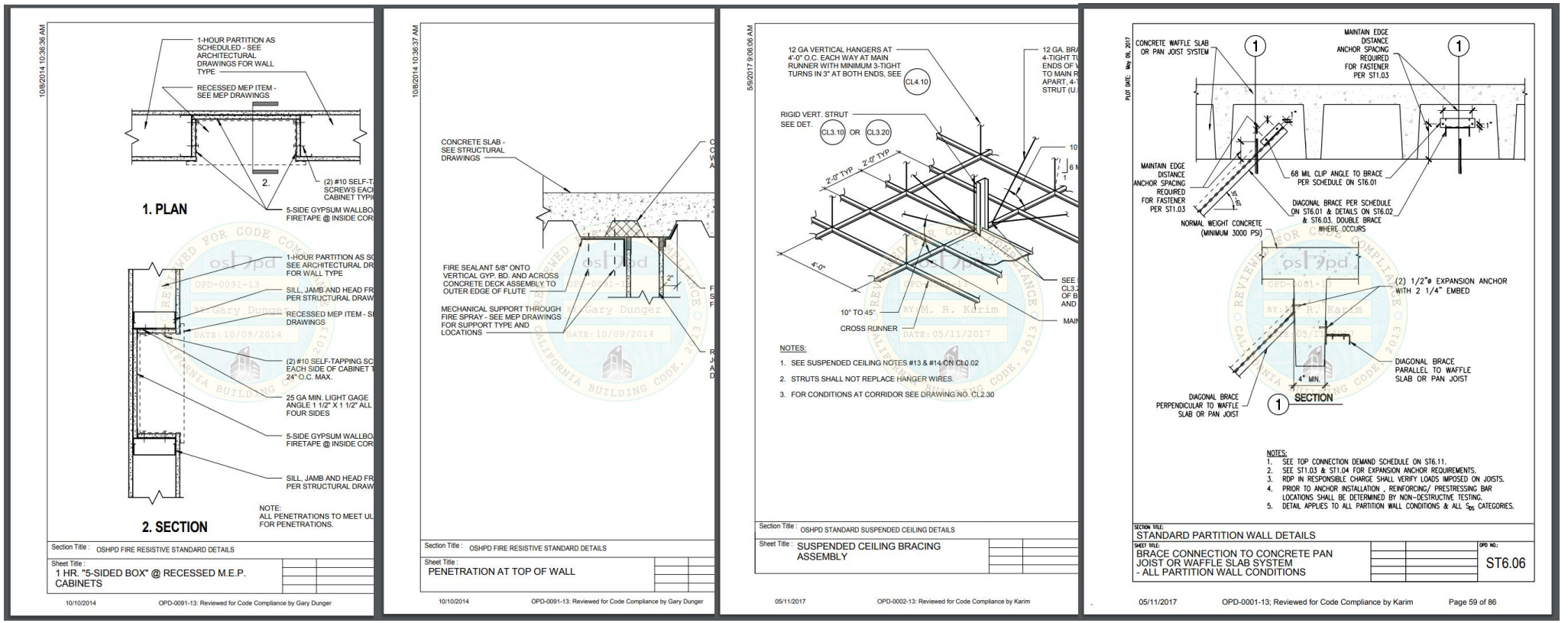
Signature of Applicant: Date: 3/18/13
Title: President/CEO Company Name: Dynamic Certification Laboratories

"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"

STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY
OSH-FD-759 (REV 1/24/13)
Page 1 of 3

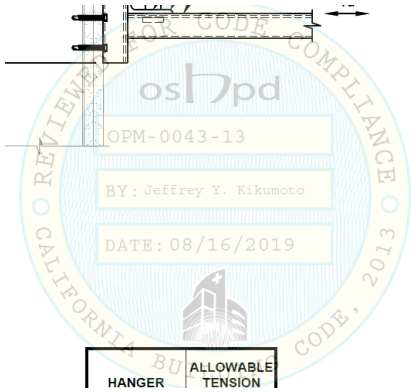
OSHPD RESOURCES

- **OSHPD Pre-Approved Details**



- **Anticipated Details are Allowed**

PRE-APPROVALS



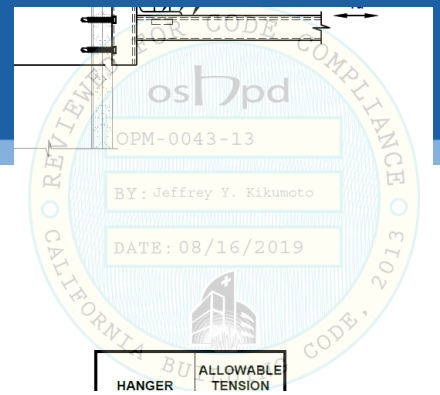
ARTICLE 3 APPROVAL OF CONSTRUCTION DOCUMENTS

Section 7-115. Preparation of construction documents and reports

(d) The specification and use of pre-approvals does not preempt the plan approval and building permit process

- The registered **design professional, in conjunction with the registered design professional in responsible charge**, listed on the plan review application or the building permit application, shall review all qualities, features, and/or properties to **ensure code compliance, appropriate integration with other building systems**, and proper design for the project-specific conditions and installation. Stamping and signing of construction documents as required in subsection (a) and (b) shall be for this purpose only.

PRE-APPROVALS



ARTICLE 3 APPROVAL OF CONSTRUCTION DOCUMENTS

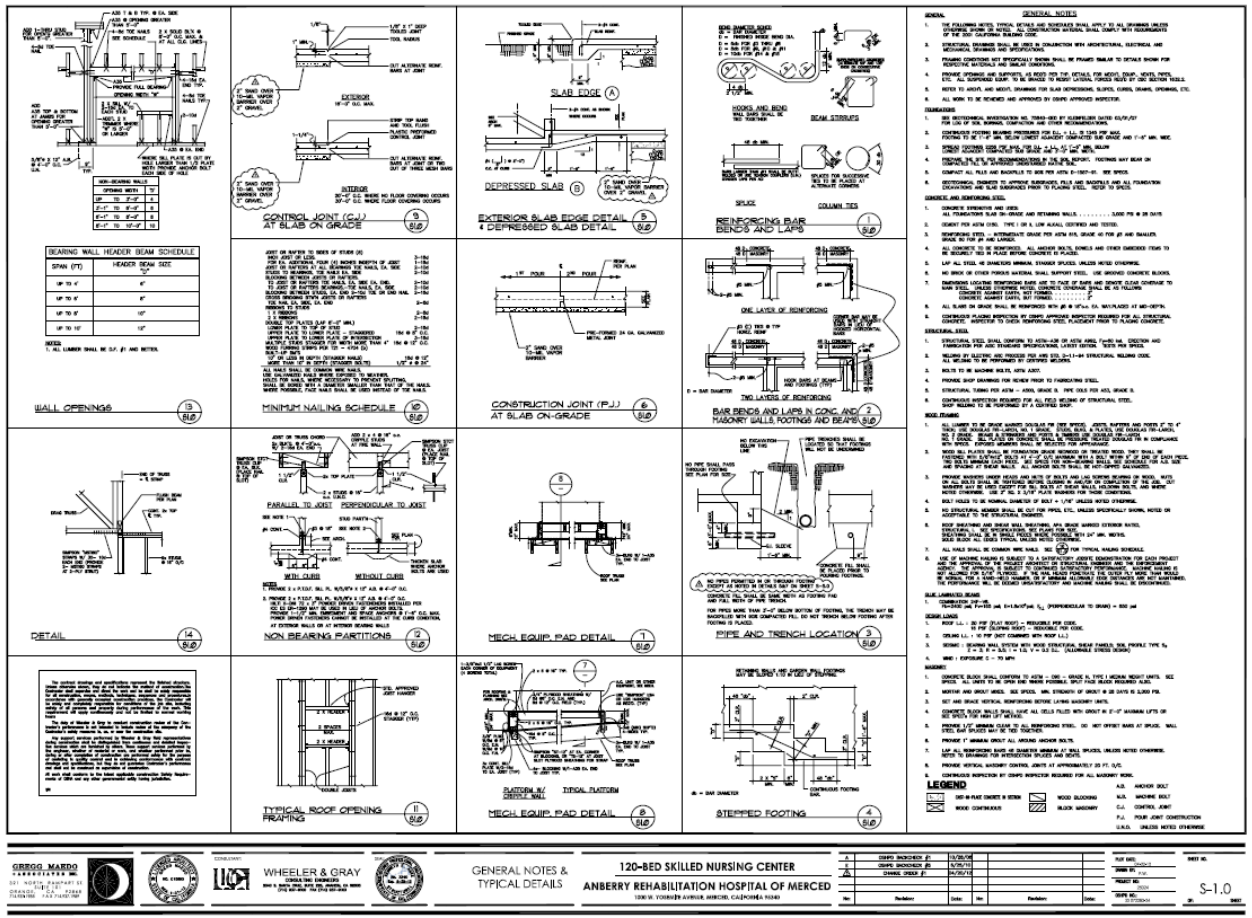
Section 7-115. Preparation of construction documents and reports

- When pre-approvals are used, they shall be incorporated into the construction documents. **Incorporation by reference only is not permitted.** Pre-approvals must be incorporated without any modification. This subsection shall not apply if modifications are made to the preapproved details.

- Pre-approvals **submitted after the construction documents have been approved** and a building permit has been issued shall be incorporated into the construction documents in accordance with **Section 7-153.**

OSHPD RESOURCES

- **Develop Facility or Building Specific Pre-Approved Details**



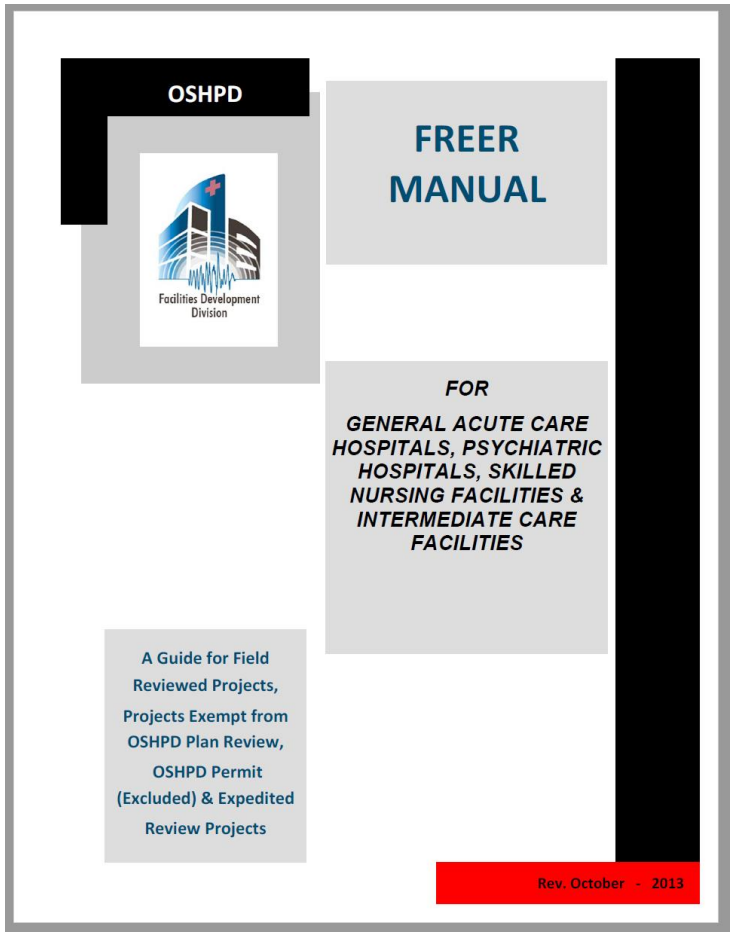
- **T&M Review**
- **Code Cycle Impacts**
- **Application**

- **Anticipated Details are Allowed**

OSHPD RESOURCES

- **FREER Manual**
  - When is a Permit Required?

ARCHITECTURAL – Continued				
Category/Item	Excluded - CO Confirmation Required	Field Review Required	Office Expedite Review	Remarks
DOOR WINDOW Changing a window opening to a door opening		✓		No increase in opening width. Must meet accessibility requirements
FINISHES Painting, wall coverings, ceiling finishes and similar finish work in existing facilities	✓			See Table 1224.1
FOUNTAINS Installing interior drinking and decorative fountains.			✓	
HANDRAILS Replacement of handrails in corridors		✓		See Handrail Replacement Criteria, Section XI(e)
LADDERS Fixed Ladders			✓	Fixed ladders attached to the structure
PORTABLE PARTITIONS AND WORK STATIONS that are not open to or within the corridor or exit system	✓			Excluded if 5"-9" or less in height and not permanently connected (hardwired) to the



OSHPD RESOURCES

Accessibility CAN

Facilities Development Division
Office of Statewide Health Planning and Development
400 R Street, Suite 200 • Sacramento, CA 95811 • (916) 440-8300
700 N. Alameda Street, Suite 2-500 • Los Angeles, CA 90012 • (213) 897-0166

CODE APPLICATION NOTICE (CAN)
H&S Code §129851

SUBJECT
Accessibility in Health Facilities

CAN: 2-11B

Effective: 9/09/2014

CODE SECTIONS
2013 California Building Code

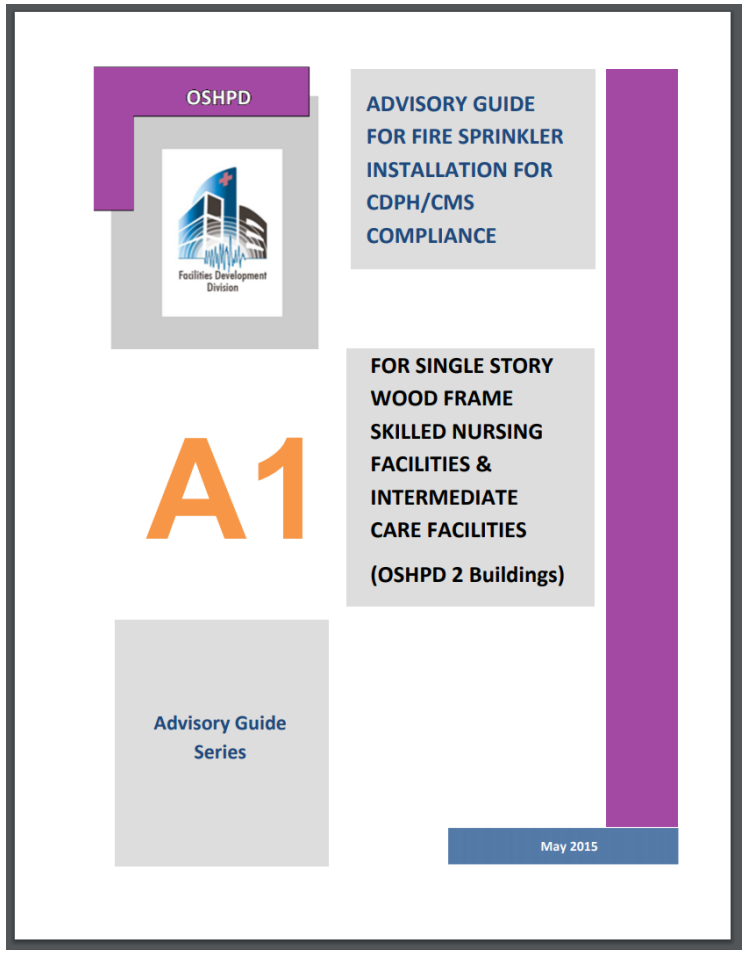
CHAPTER 11B - ACCESSIBILITY TO PUBLIC BUILDINGS, PUBLIC ACCOMODATIONS, COMMERCIAL BUILDINGS AND PUBLIC HOUSING

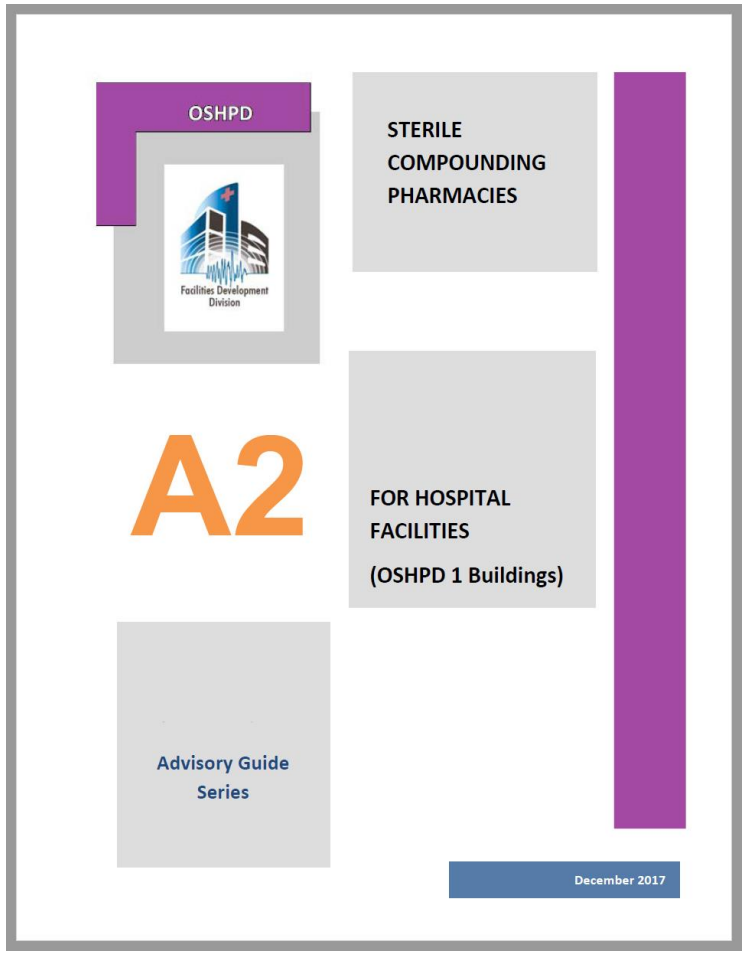
PURPOSE

The purpose of this Code Application Notice (CAN) is to clarify code sections in the 2013 California Building Code (CBC) in order to provide consistent application of accessibility regulations as they relate to new construction and alteration of health facilities under the jurisdiction of the Office of Statewide Health Planning and Development (OSHPD).

OSHPD RESOURCES

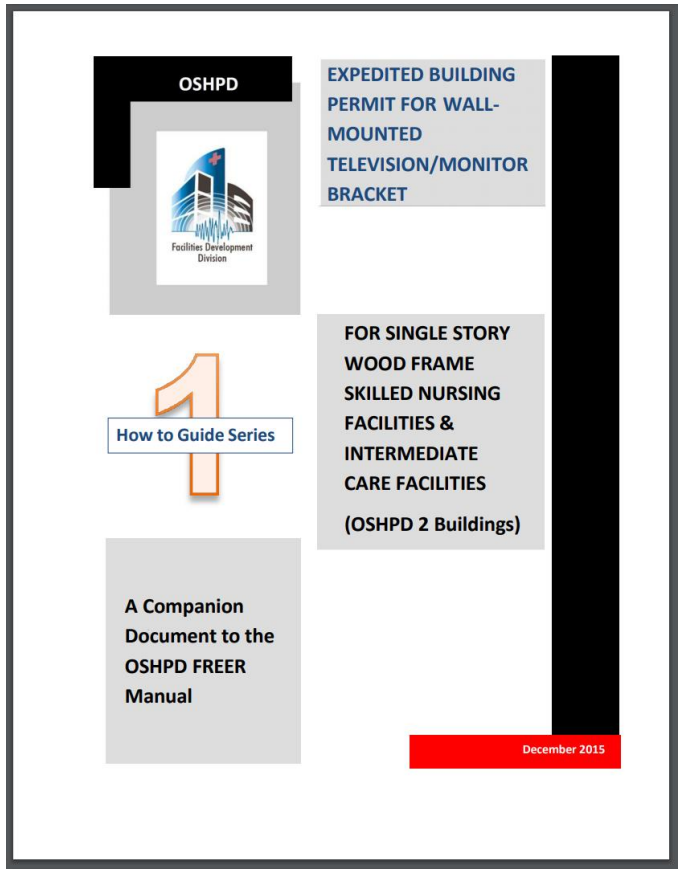
- **Advisory Guides**
  - Fire Sprinkler Installation
  - Sterile Compounding Pharmacies

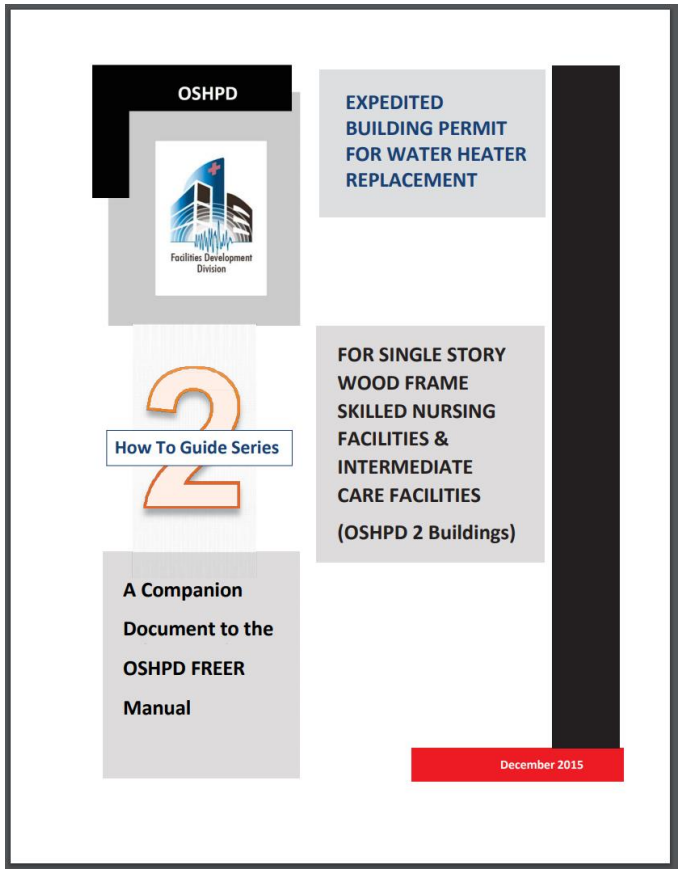


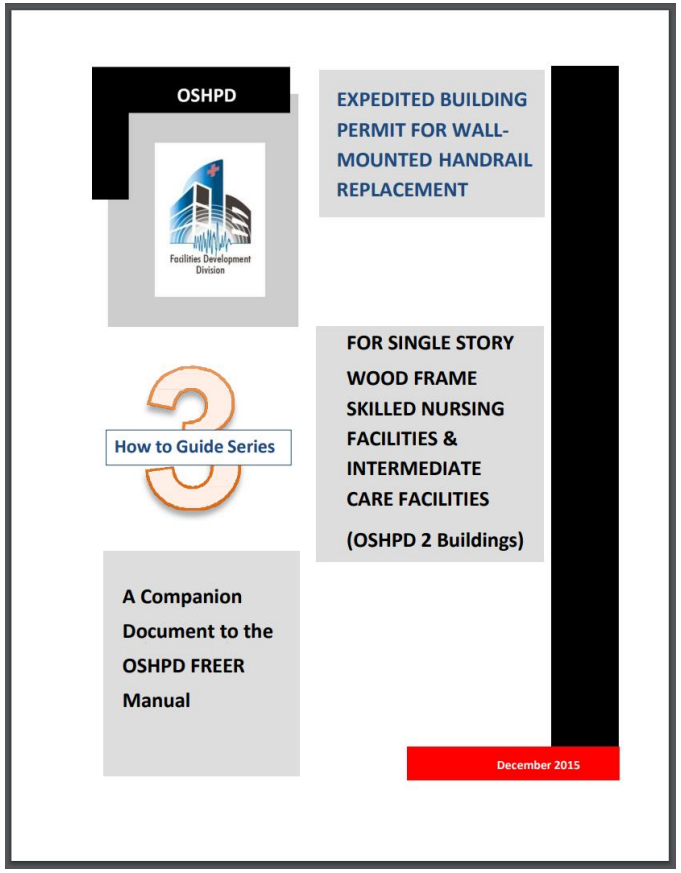


OSHPD RESOURCES

How To Guides

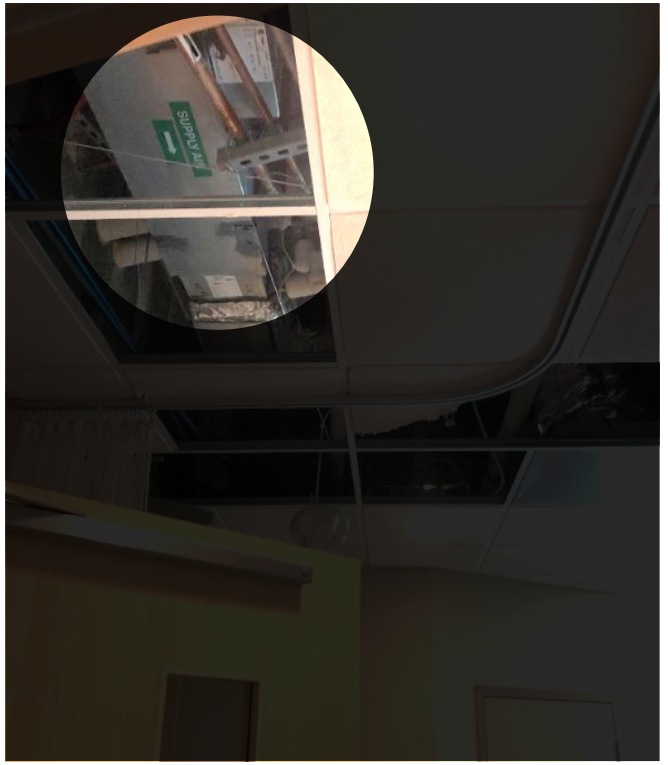






Not Required but Good to Do

- Flexible connections and drywall joints on minor piping



OSHPD RESOURCES

- **Allowed but not Good to Do**
  - Pharmacy Pass-thru's not passing from controlled to uncontrolled spaces

Remodel PLUS

III. Introduction to CAN 2-102.6

Facilities Development Division
Office of Statewide Health Planning and Development
400 R Street, Suite 200 • Sacramento, CA 95811 • (916) 440-8300
700 N. Alameda Street, Suite 2-500 • Los Angeles, CA 90012 • (213) 897-0166

CODE APPLICATION NOTICE (CAN)
H&S Code §129851

SUBJECT
Remodel
(formerly CAN 2-3403A)

CAN: 2-102.6
Effective: 6/19/2008
Revised: 3/3/2014

CODE SECTIONS

Section 102.6
California Building Code (CBC)

Sections 102.1 and 102.3
California Mechanical Code (CMC)

Sections 101.11 and 101.11.3
California Plumbing Code (CPC)

California Building Code

KEY OBJECTIVES

INTRODUCTION TO CAN 2-106.2

- **Introduce new CAN 2-102.6**
- **Define Existing Structures**
- **Define Additions, Renovations, Alterations and Repairs**
- **Define Change of Use, Function and Occupancy**

CAN 2-102.6

Question: *What is a Remodel?*

Answer: An Alteration.

Question: *What is an Alteration?*

- **Alteration Defined**
  - Any construction or renovation to an existing structure other than repair or addition. CBC 202
  - Alteration means any change in an existing building which <u>does not increase and may decrease the floor or roof area</u> or the volume of enclosed space. CAC 7-111

CAN 2-102.6

When does CAN 2-102.6 apply?

- **Existing Structures**
  - The legal occupancy of any structure existing on the date of adoption of this code **shall be permitted to continue without change, except as is specifically provided in this code**, the *California Existing Building Code,* the *International Property Maintenance Code,* the *California Fire Code,* or as is deemed necessary by the building official for the general safety and welfare of the occupants and the public. CBC 102.6

CAN 2-102.6

When does CAN 2-102.6 apply?

- Existing Structures
- **Additions, Renovations, Alterations or Repairs**
  - Additions, renovations, alterations, or repairs **shall conform to that for a new system without requiring the existing systems to be in accordance with the requirements of this code.** Additions, renovations, alterations, or repairs shall not cause an existing system to become unsafe or create unhealthy or overloaded conditions. CMC/CPC 102.4
  - Additions, alterations, renovations, or repairs to existing systems **shall comply with the provisions for new construction**, unless such deviations are found to be necessary and are first approved by the Authority Having Jurisdiction. CMC/CPC 102.4

CAN 2-102.6

- **Addition** - *An extension or increase in floor area or height of a building or structure*

- **Renovation –** an update to an existing building or a return to a new condition

- **Alteration -** *A change, addition or modification in construction, change in occupancy or use, or structural repair to an existing building or facility. Alterations include, but are not limited to,* ***remodeling, renovation, rehabilitation, reconstruction, historic restoration, resurfacing of circulation paths or vehicular ways, changes or rearrangement of the structural parts or elements, and changes or rearrangement in the plan configuration of walls and full-height partitions.*** *Normal maintenance, reroofing, painting or wallpapering, or changes to mechanical and electrical systems are not alterations unless they affect the usability of the building or facility (DSA) CBC 202*

- **Repair –** The reconstruction or renewal of any part of an existing building for the purpose of its maintenance or to correct damage *CBC 202*

CAN 2-102.6

When does CAN 2-102.6 apply?

- Existing Structures
- Additions, Alterations or Repairs
- **Changes in Building Occupancy or Use**
  - Building systems that are a part of a building or structure undergoing a change in use or occupancy, as defined in the building code, shall be in accordance with the requirements of this code that are applicable to the new use or occupancy. CMC/CPC 102.6

CAN 2-102.6

- **Change in Character of Use CEBC 506.1.1 (not for OSHPD 1)**
  - A change in occupancy with no change of occupancy classification shall not be made to any structure that will subject the structure to any special provision of the applicable CA codes without approval of the code official.
  - Compliance shall be only as necessary to meet the specific provisions and is not intended to require the entire building be brought into compliance.
- **Example – B occupancy to a similar B occupancy**
- **Example – OSHPD 1 to OSHPD 1R where the reuse of the SPC1 building incorporates services supporting the OSHPD 1 facility**

CAN 2-102.6

- **Change in Function CEBC 506.1.2 & 506A.1.1/CBC 1224.3**
  - A change in activity or service provided within the **project limits** that does not change the use, specific use, or occupancy.
  - Requires compliance with all functional requirements for new construction
- **Example Project - Change from Med Surg Unit to Peds Unit**

Peds Unit (additional functional requirements)

Exam/Treatment Room

Play Area

Common Patient Toilet near Play Area

Infant Formula

Storage for Toys/Recreation Equipment

Isolation Room

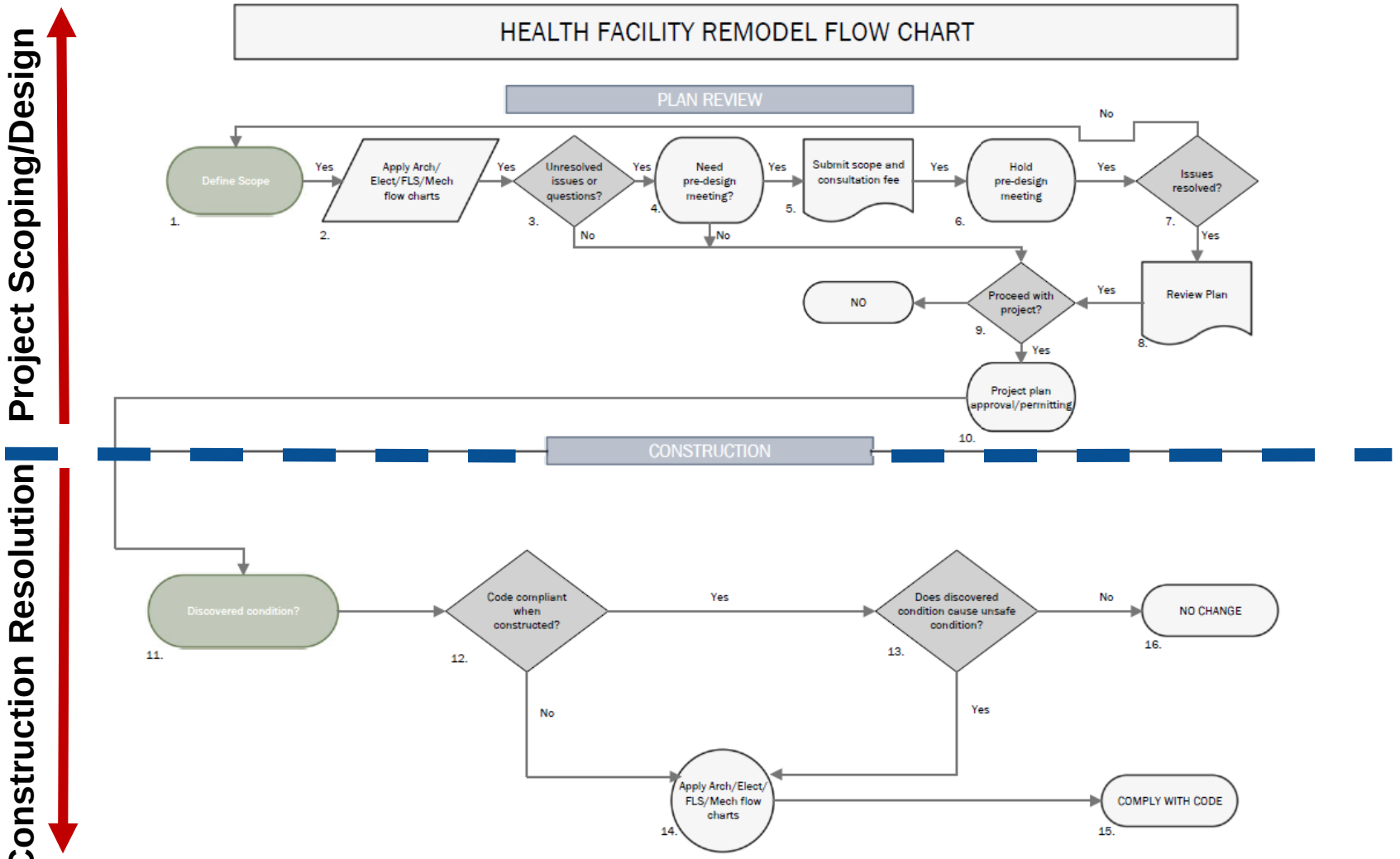
CAN 2-102.6

- **Change of Occupancy**
  - Change of an occupancy or use defined in Chapter 3 of the CBC. Also see CEBC Section 506 and 506A.
  - A change in occupancy shall not be made in any building unless that building is made to comply with the requirements of the CBC for the use or occupancy.
  - Subject to approval of AHJ, changes of occupancy shall be permitted without complying with all of the requirements of this code for the new occupancy, provided that the new occupancy is less hazardous, based on life and fire risk, than the existing occupancy. (CEBC 506.1)
- Examples:
  - OSHPD 1 to OSHPD 1R where the reuse of the SPC1 building incorporates a different use
  - I Occupancy to B Occupancy may require door closers in old patient rooms.

CAN 2-102.6

- **Change of Occupant Load**
  - A change in the number of persons for which the means of egress of a building or portion thereof is designed.
    - **Example – change from office to conference room**
    - **Example – change from dining to storage**
    - **Example – Assembly Room made larger**
  - A change in the type of occupants including those identified or described as ambulatory, non-ambulatory, bedridden, restrained, developmentally disabled, inpatient, outpatient, non-patient, public, staff, adults, children and infants.
    - **Example – change from Med Surg to Acute Psych**
  - Also see CBC Section 1004

INTRODUCTION to CAN 2-102.6



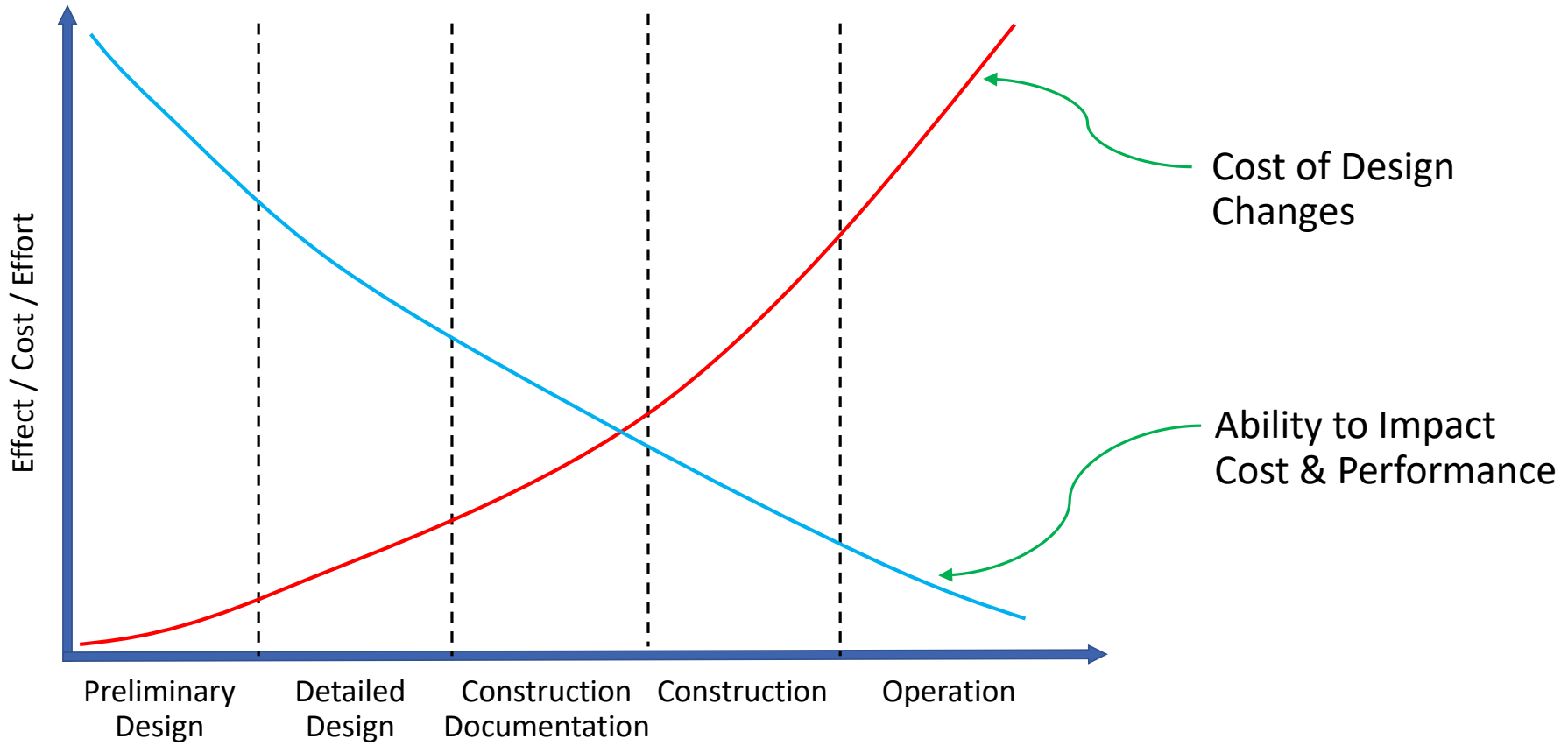
Remodel PLUS

IV. Project Scoping,

Design & Permitting

SCOPING VS DESIGN

Cost of Changes

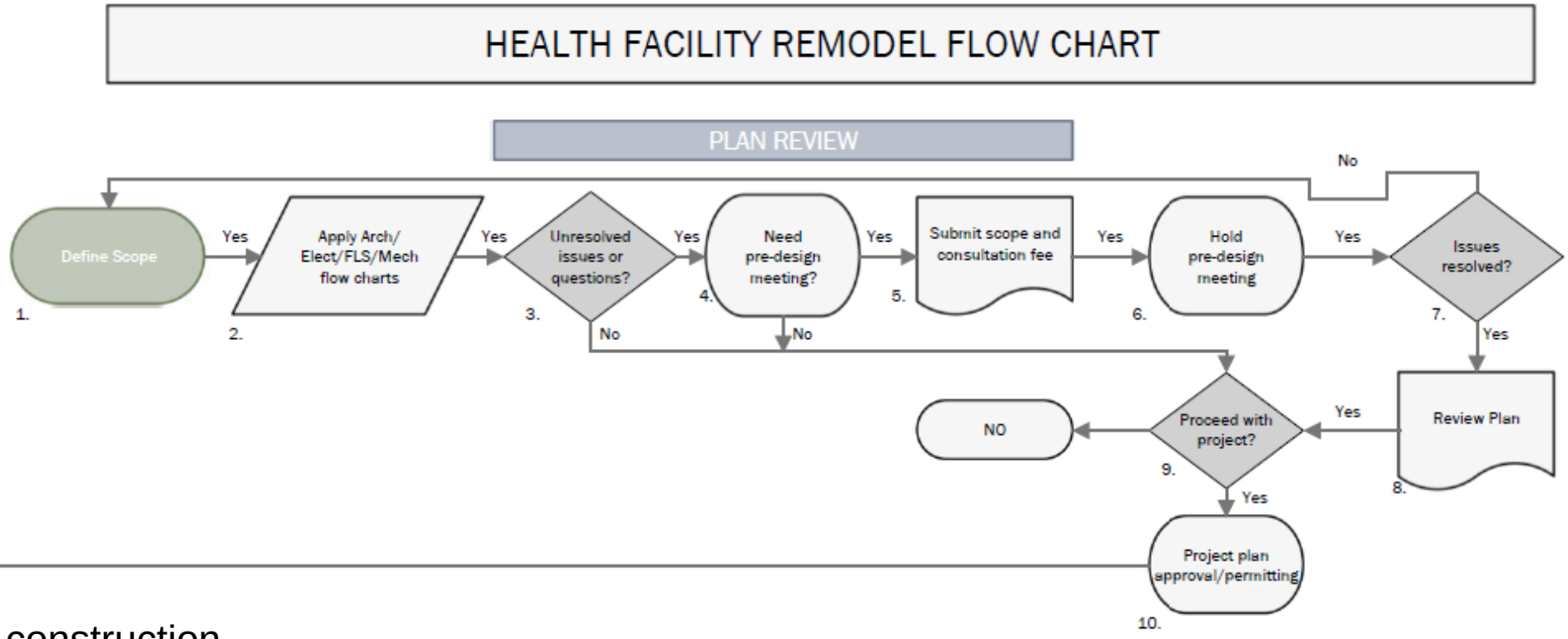


KEY OBJECTIVES

SCOPING, DESIGN & PERMITTING

- ***"HEALTH FACILITY REMODEL FLOW CHART" Design Phase***
- **Applicable Pins & Cans**
- **Detailed Arch/M/E/FLS FLOW CHARTS**
- **Fire Life Safety During Design**
- **Accessibility Scoping**
- **Energy Code for Remodel Projects**
- **Infection Control, ISLMs, Phasing and MOPs**
- **MOPs and Deferred Approvals**
- **OSHPD 1R Unique Issues**
- **Tips For Success**

OVERVIEW OF FLOW CHART – DESIGN PHASE



DESIGN APPLICABLE PIN's and CAN's

DEFINE SCOPE

- **Physical Construction *or* Change of Use**
- **New Project *or* ACD**
- **Project Size**

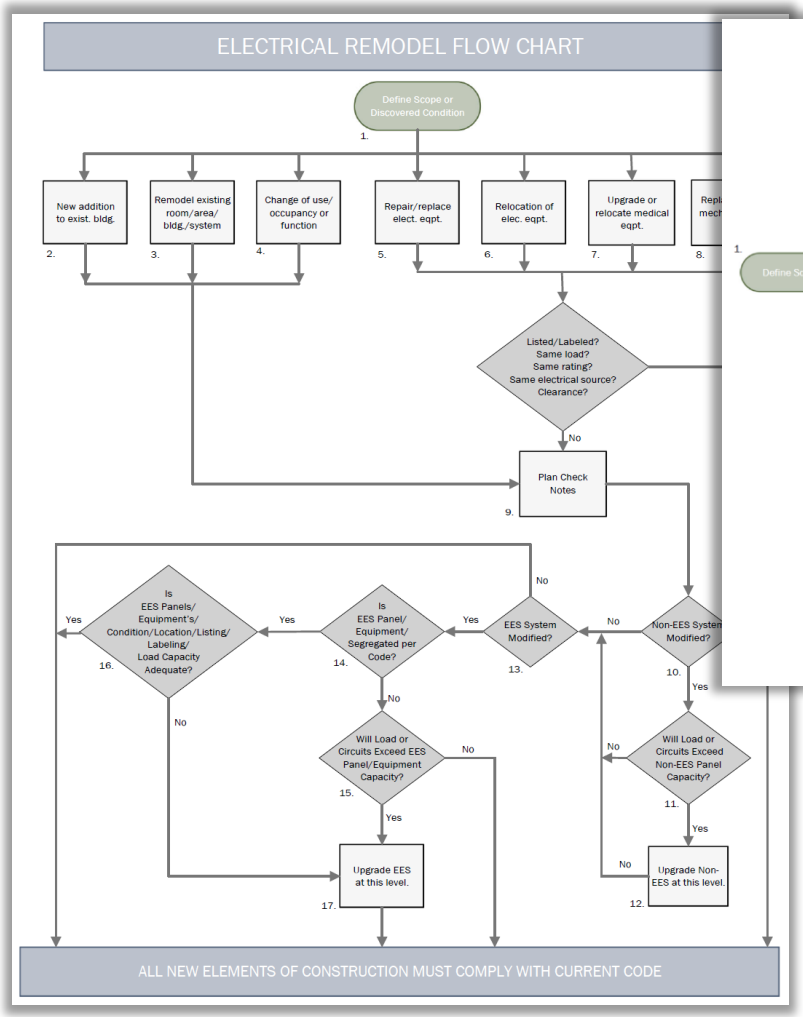
APPLY FLOW CHARTS

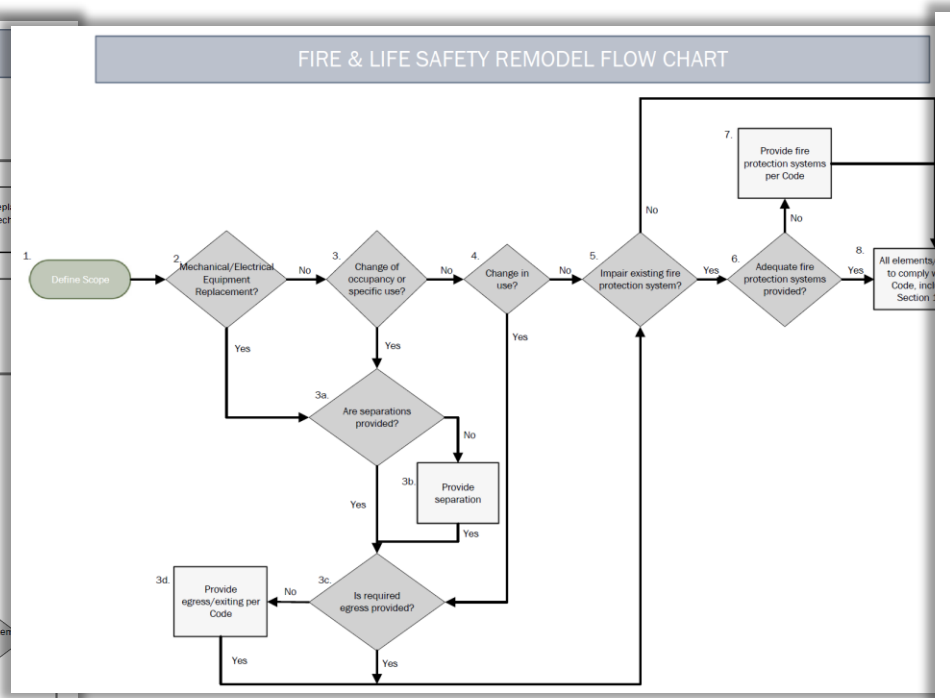
- **A/M/E/P/FLS Flow Charts**
- **Accessibility**
- **Temporary Utilities**

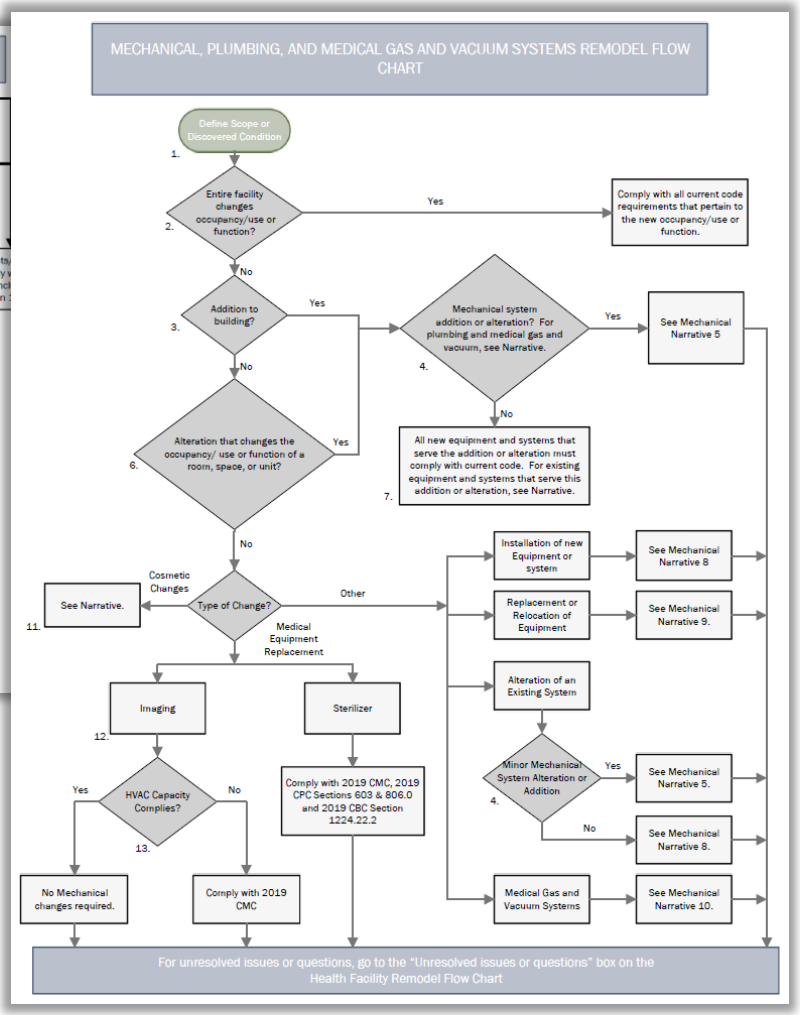
PROCESSES

- **Preliminary *or* Final Submittal**
- ***e*CPR & AMC**

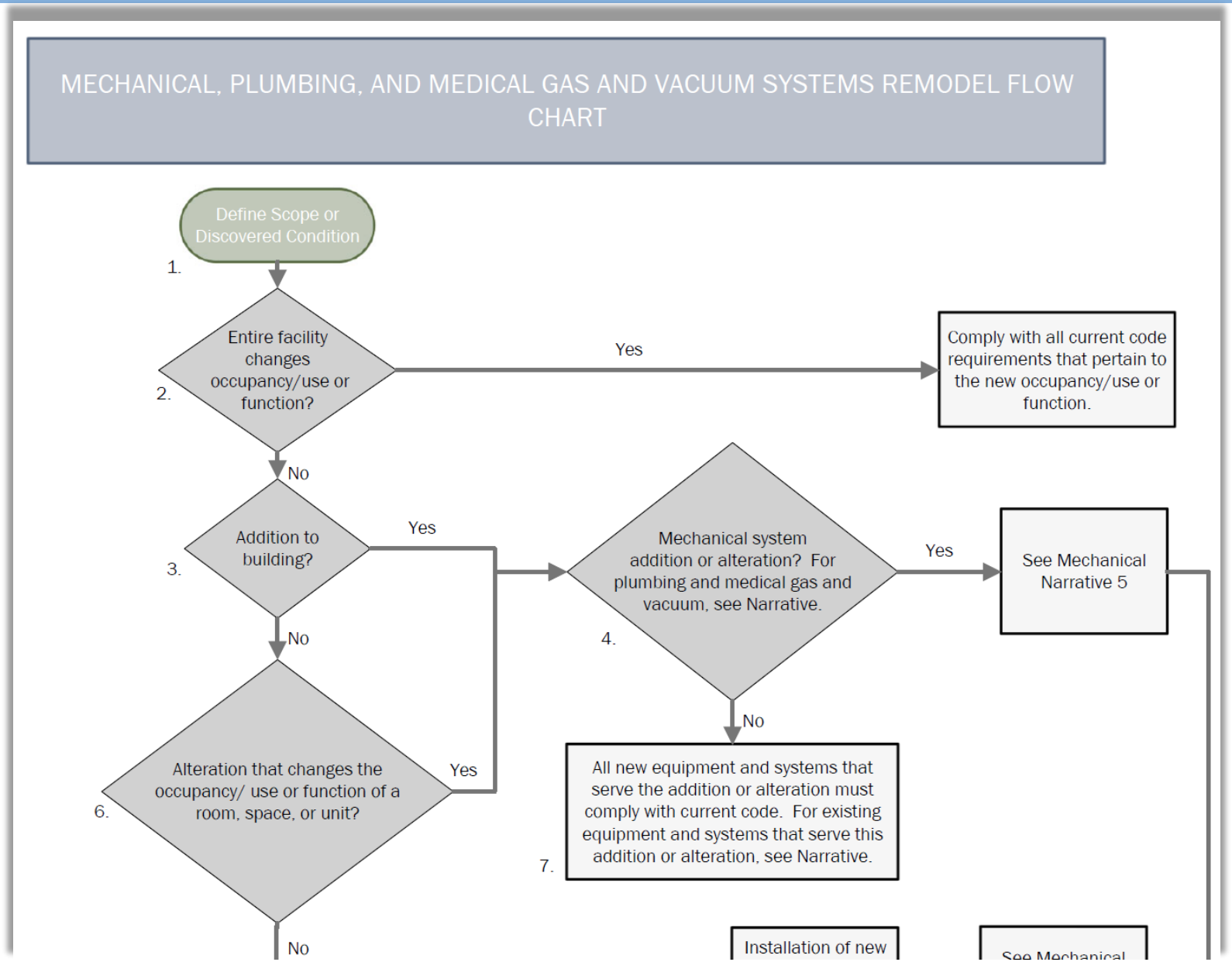
DETAILED FLOW CHARTS FOR M/E/FLS



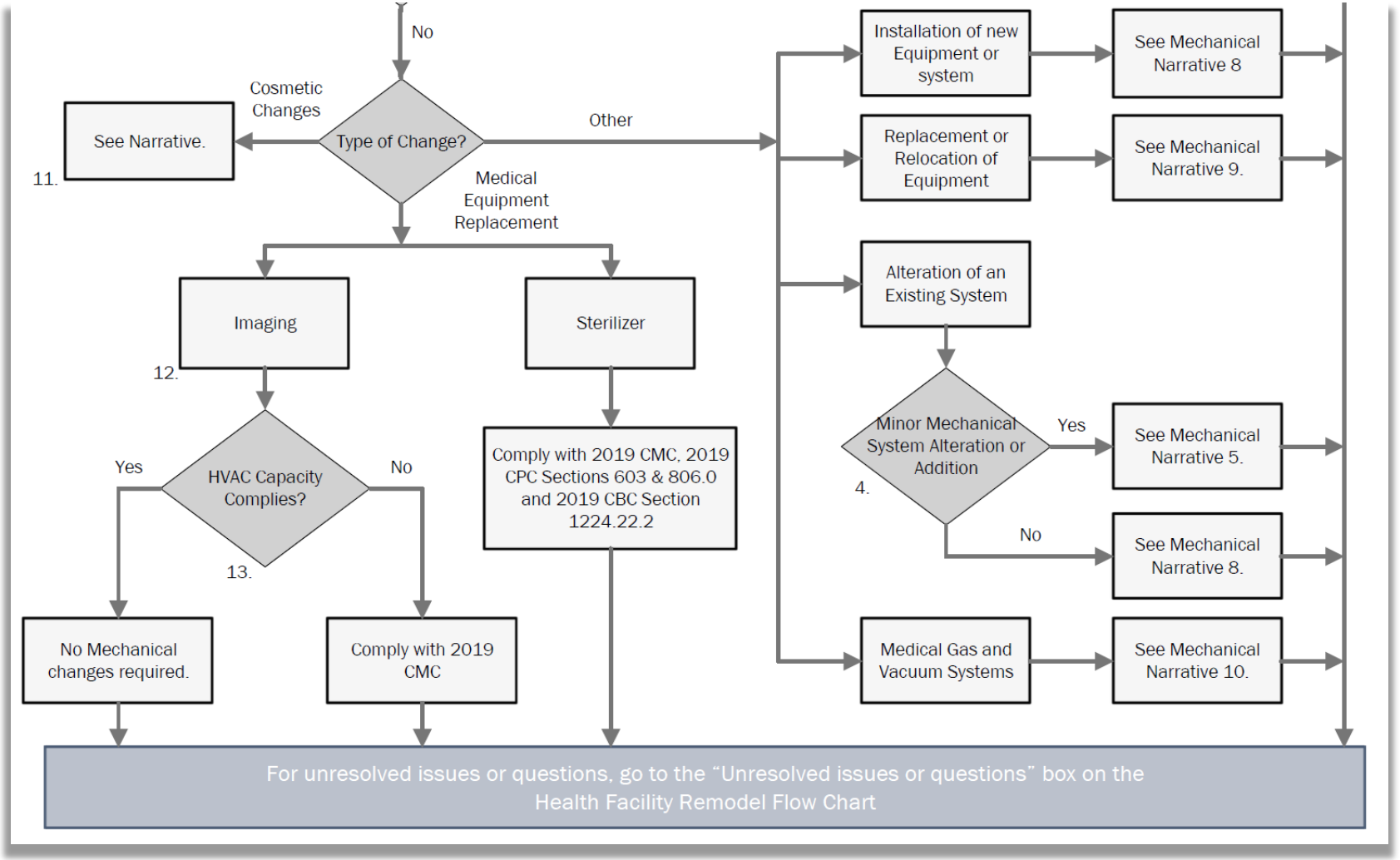




DETAILED FLOW CHARTS FOR MECHANICAL



DETAILED FLOW CHARTS FOR MECHANICAL



DETAILED FLOW CHARTS FOR MECHANICAL

HVAC Replacement - large

LARGE EQUIPMENT REPLACEMENT

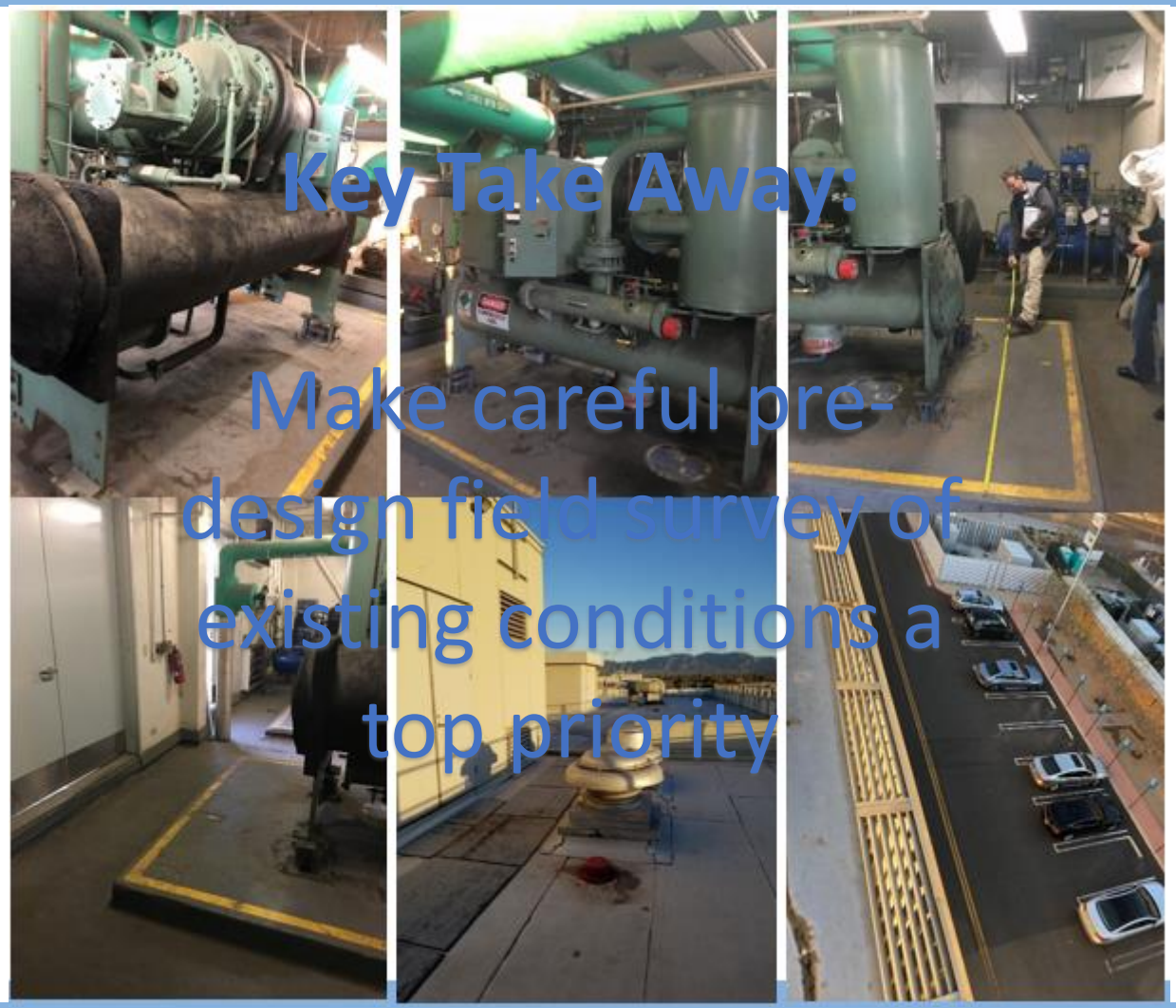
Top Notable Issues

- Dehumidifier sold without Seismic Certification
- Shake test required
- Above roof substructure used to avoid interruption below
- Certification Label Required
- Complex Ducting Issues

LARGE EQUIPMENT – CHILLER REPLACEMENT

Top Notable Issues

- Roof penthouse location limited chiller model options
- Crane location to lift chiller impeded ambulance access to emergency entrance
- Careful rigging requirements to move old and new units across roof
- Refrigerant detection system required to meet current code



DETAILED FLOW CHARTS FOR MECHANICAL

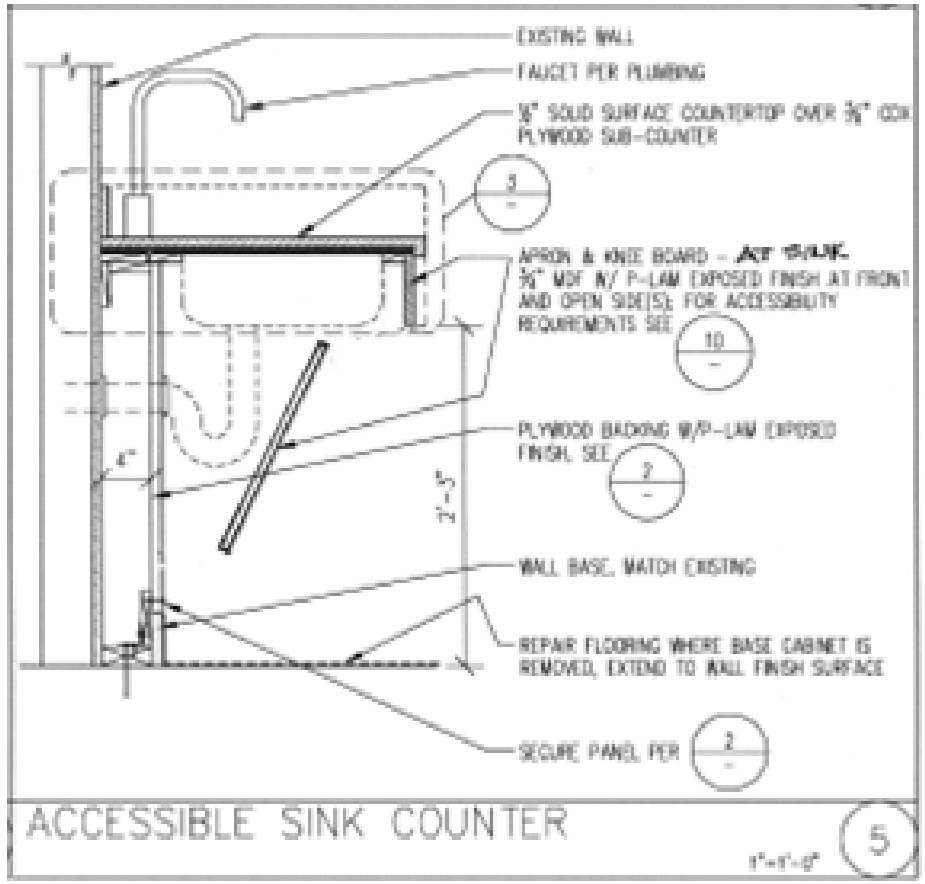
HVAC Replacement – small

- Capacity
- Filtration
- Multiple Units
- Essential Power

DETAILED FLOW CHARTS FOR MECHANICAL

Plumbing Revisions

- Fixture counts
- Accessibility



DETAILED FLOW CHARTS FOR MECHANICAL

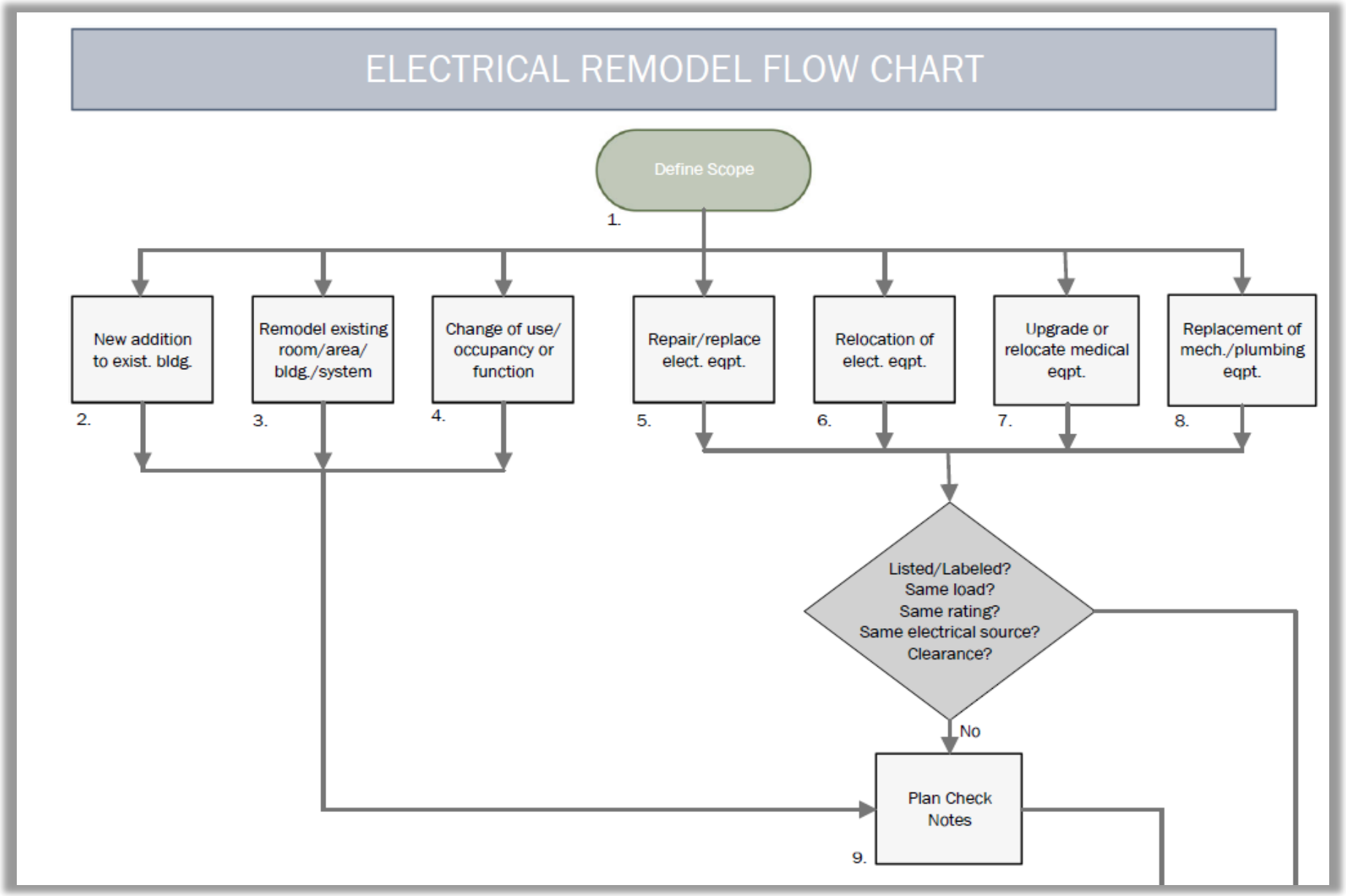
Med Gas Revisions

MED GAS

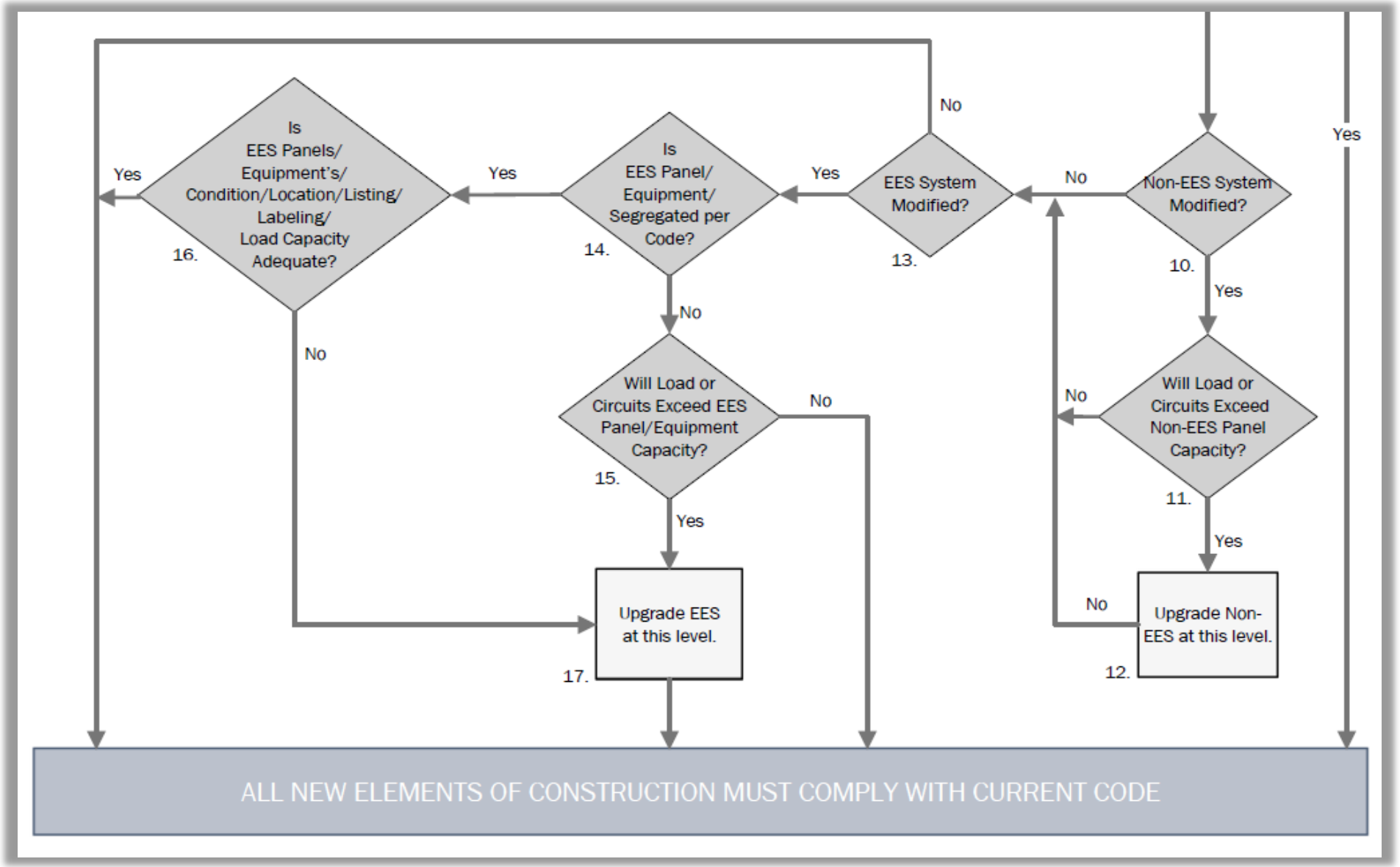
Top Notable Issues

- Locate a new med gas source near procedure area
- Careful consideration of eligible space
- Existing piping's ability to meet capacity of new demand
- Med gas panel's compatibility with additional med gas

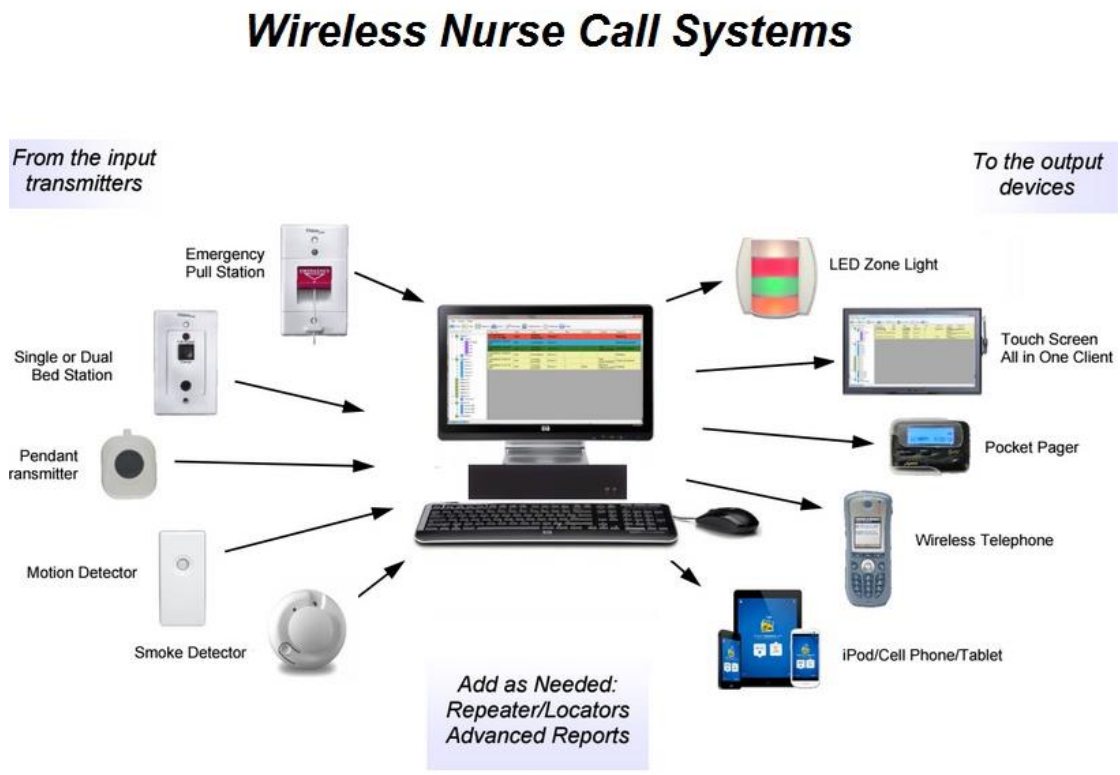
DETAILED FLOW CHARTS FOR ELECTRICAL



DETAILED FLOW CHARTS FOR ELECTRICAL

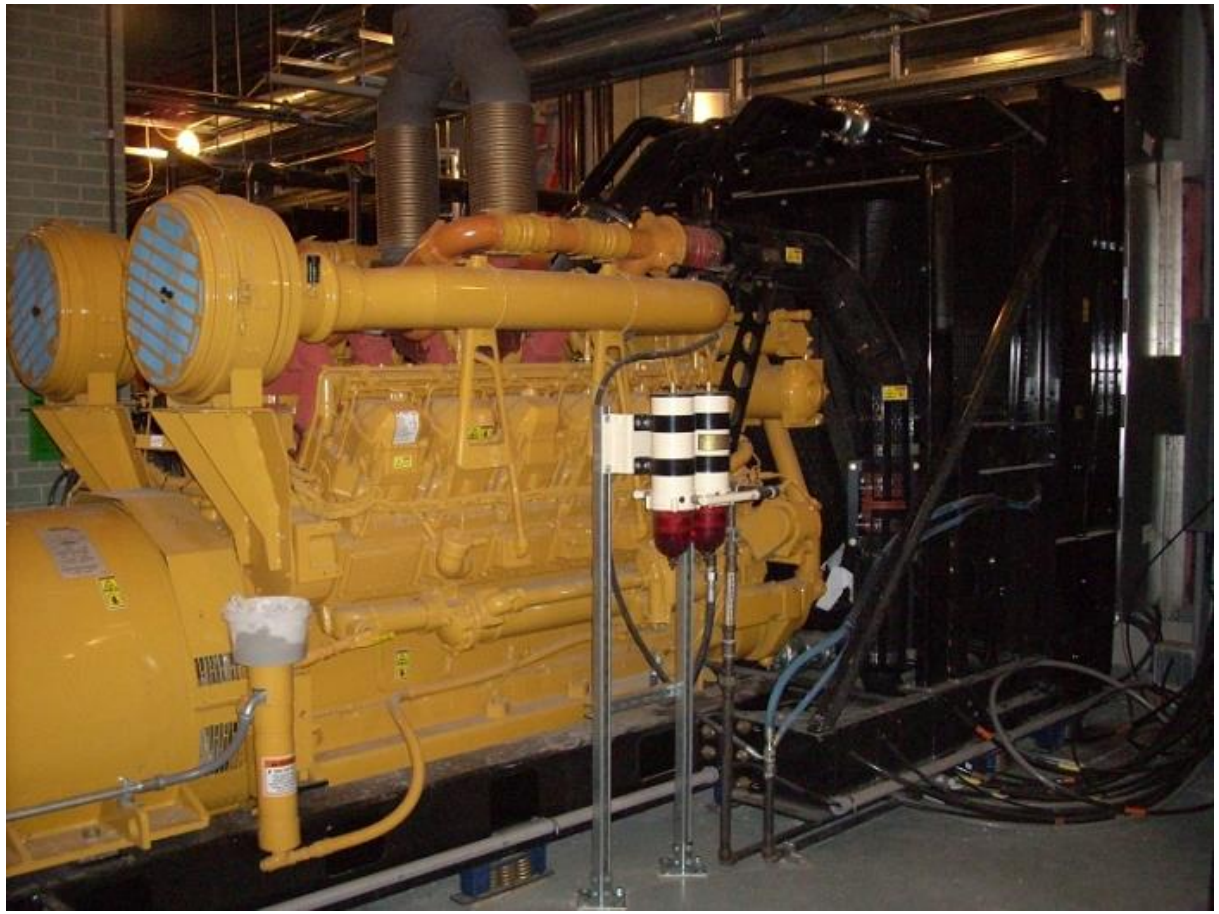


Nurse Call Replacement



DETAILED FLOW CHARTS FOR ELECTRICAL

Generator Replacement



DETAILED FLOW CHARTS FOR ELECTRICAL

ATS Replacement

Existing ATS

Temporary ATS

New ATS

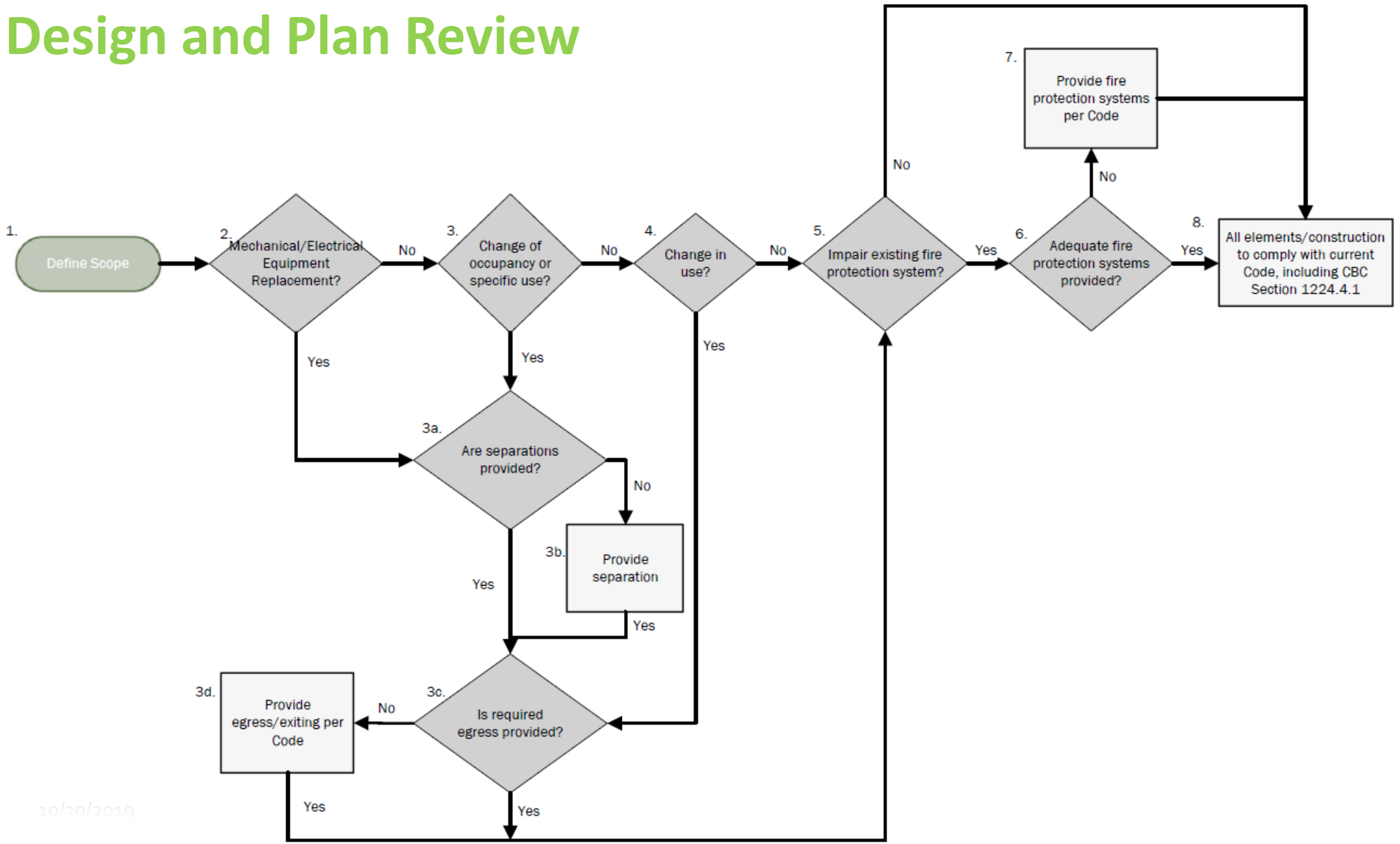

TAKE A BREAK!

Fire and Life Safety

Design and Plan Review

Fire and Life Safety

Design and Plan Review



Determine and State the scope of the project (#1)

- Project Objectives
- Analysis of existing conditions
- Protection of existing construction and fire/life safety conditions to maintain safe facility
- Applicable CANs and PINs
- Identify Change of Use or Occupancy

Homework Difficult or Creative… You decide

Resources

Guidelines on Fire Ratings of Archaic Materials and Assemblies – IEBC Chapter Resource A

The Guideline on Fire Ratings of Archaic Materials and Assemblies focuses upon the fire-related performance of archaic construction. "Archaic" encompasses construction typical of an earlier time, generally prior to 1950. "Fire related performance" includes fire resistance, flame spread, smoke production and degree of combustibility.

Harmathy's Rules
Ten Rules of Fire Endurance Rating
ICC

The author sets forth ten rules that may prove useful for quick assessment of the fire endurance of building elements.

Mechanical/Electrical Equipment Replacement? (#2)

If **yes**, there are M & E replacement(s), then=

Provide Separations

as required per Chapters 3, 5, 508, 509, etc (#3a, #3b)

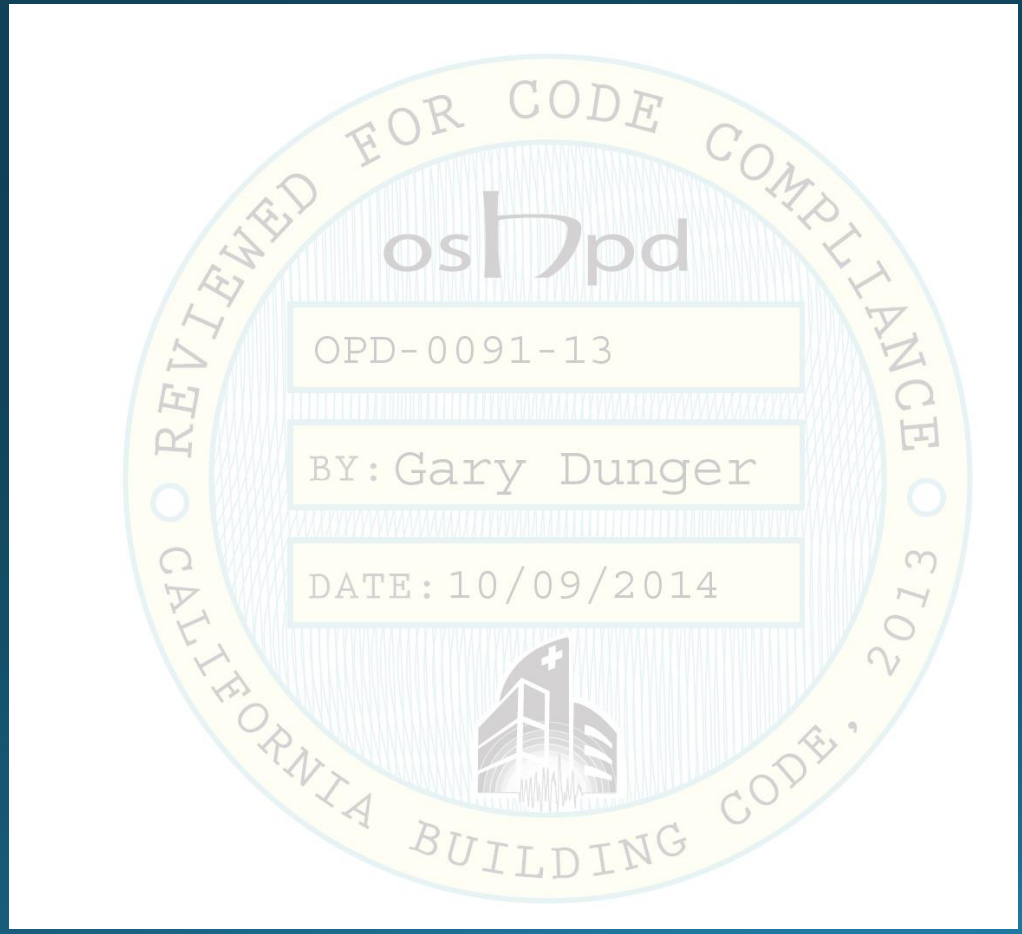
Change in function or Change of use/occupancy (#3)

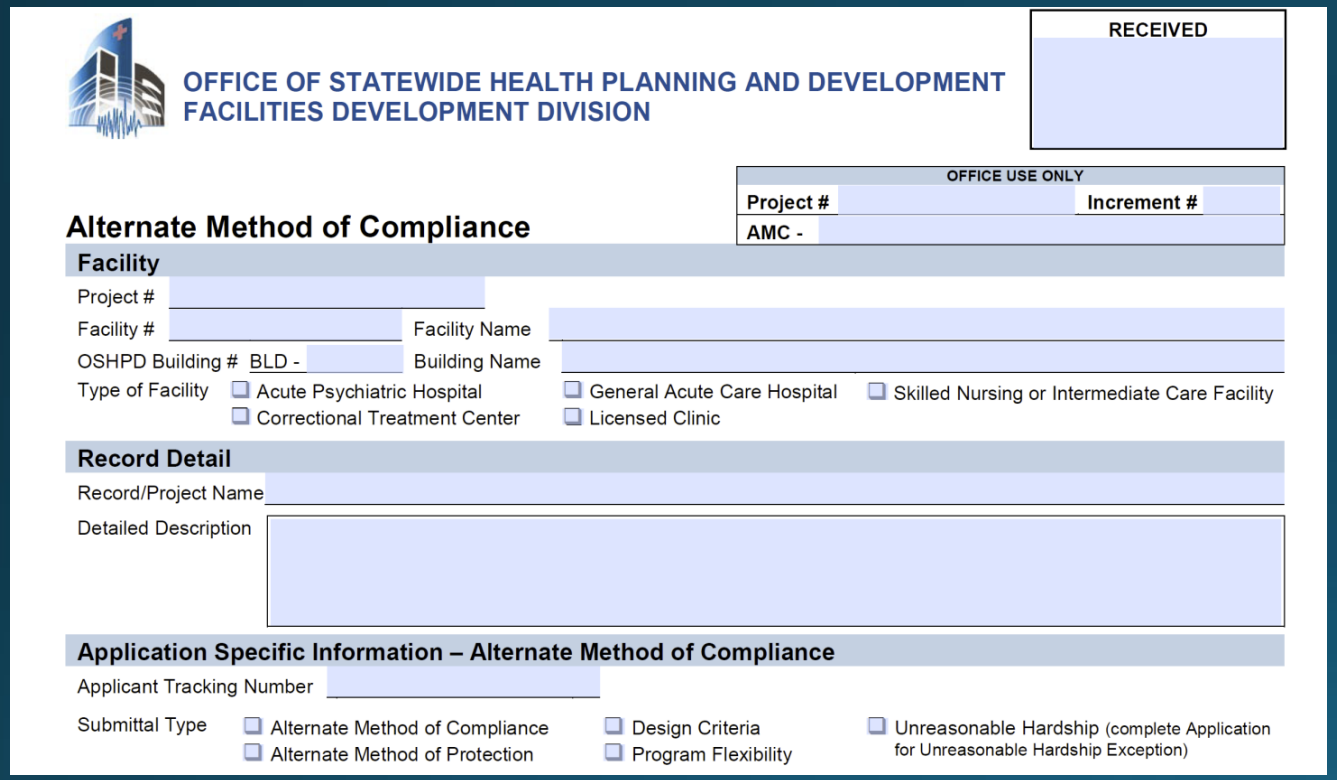
- **Change in Function**-A change in activity or service provided within the project limits that does not change the use, specific use or occupancy.
- **Change of Occupancy/Use**-Change of an occupancy or use defined in CBC 2, 3, 5 & 3408A

Provide separation per CBC 3, 5, 508, 509, etc
(#3, #3a, #3b)

OSHPD Pre-Approved Details

https://oshpd.ca.gov/construction-finance/preapproval-programs/





OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

RECEIVED

OFFICE USE ONLY
Project # Increment #
AMC -

Alternate Method of Compliance

Facility

Project #
Facility # Facility Name
OSHPD Building # BLD - Building Name
Type of Facility ☐ Acute Psychiatric Hospital ☐ General Acute Care Hospital ☐ Skilled Nursing or Intermediate Care Facility
☐ Correctional Treatment Center ☐ Licensed Clinic

Record Detail

Record/Project Name
Detailed Description

Application Specific Information – Alternate Method of Compliance

Applicant Tracking Number
Submittal Type ☐ Alternate Method of Compliance ☐ Design Criteria ☐ Unreasonable Hardship (complete Application for Unreasonable Hardship Exception)
☐ Alternate Method of Protection ☐ Program Flexibility

Alternate Method of Compliance **AMC**

MIXED USE AND OCCUPANCY

- **508.2 Accessory occupancies.**
- **508.2.3 Allowable building area.** The allowable area of the building shall be based on the applicable provisions of Section 506 for the main occupancy of the building. Aggregate accessory occupancies **shall not occupy more than 10 percent** of the floor area of the story in which they are located and shall not exceed the tabular values for nonsprinklered buildings in Table 506.2 for each such accessory occupancy.

- Accessory occupancy area is based on the basic allowable area for nonsprinklered buildings. No deals (increases) for accessory uses.

Temporary Construction Barriers

CAN 9-3301

- Temporary rating same as permanent partition
- Exiting reviewed and approved by local fire AHJ AND OSHPD, **PRIOR** to any demolition or construction

- Required means of egress shall be maintained during construction and demolition, remodeling or alterations and additions to any building.
- **Code compliant means of egress shall be maintained at all times.**
- Local Fire AHJ and OSHPD shall approve all temporary exiting
- SPC/NPC ratings and paths of egress travel
- **CFC 3311**

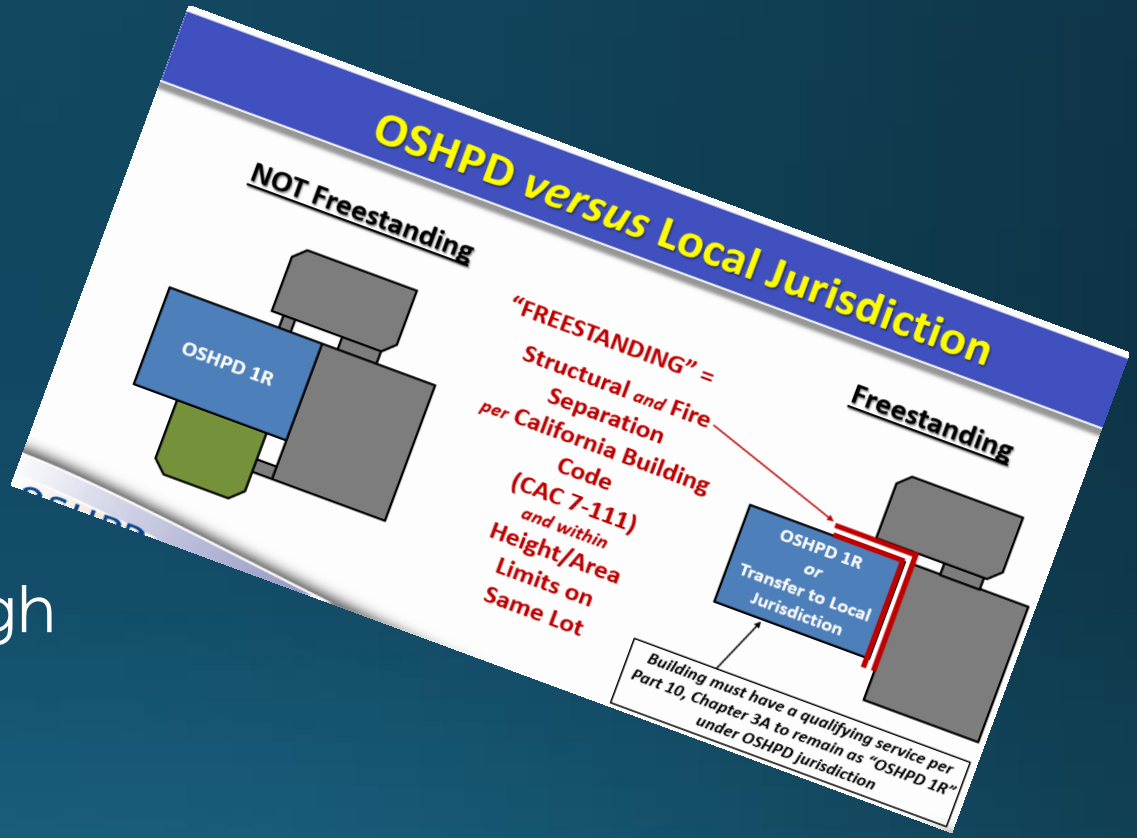
(#3c, #3d)

OSHPD 1R

Separate Seminar/Webinar provided

Quick Points

- Exiting shall not traverse through 1R Building
- Separations required per OSHPD 1R Seminar and code
- Fire Protection systems; Utilities; Power; etc. Shall not be fed from/pass through 1R building
- Numerous scenarios….

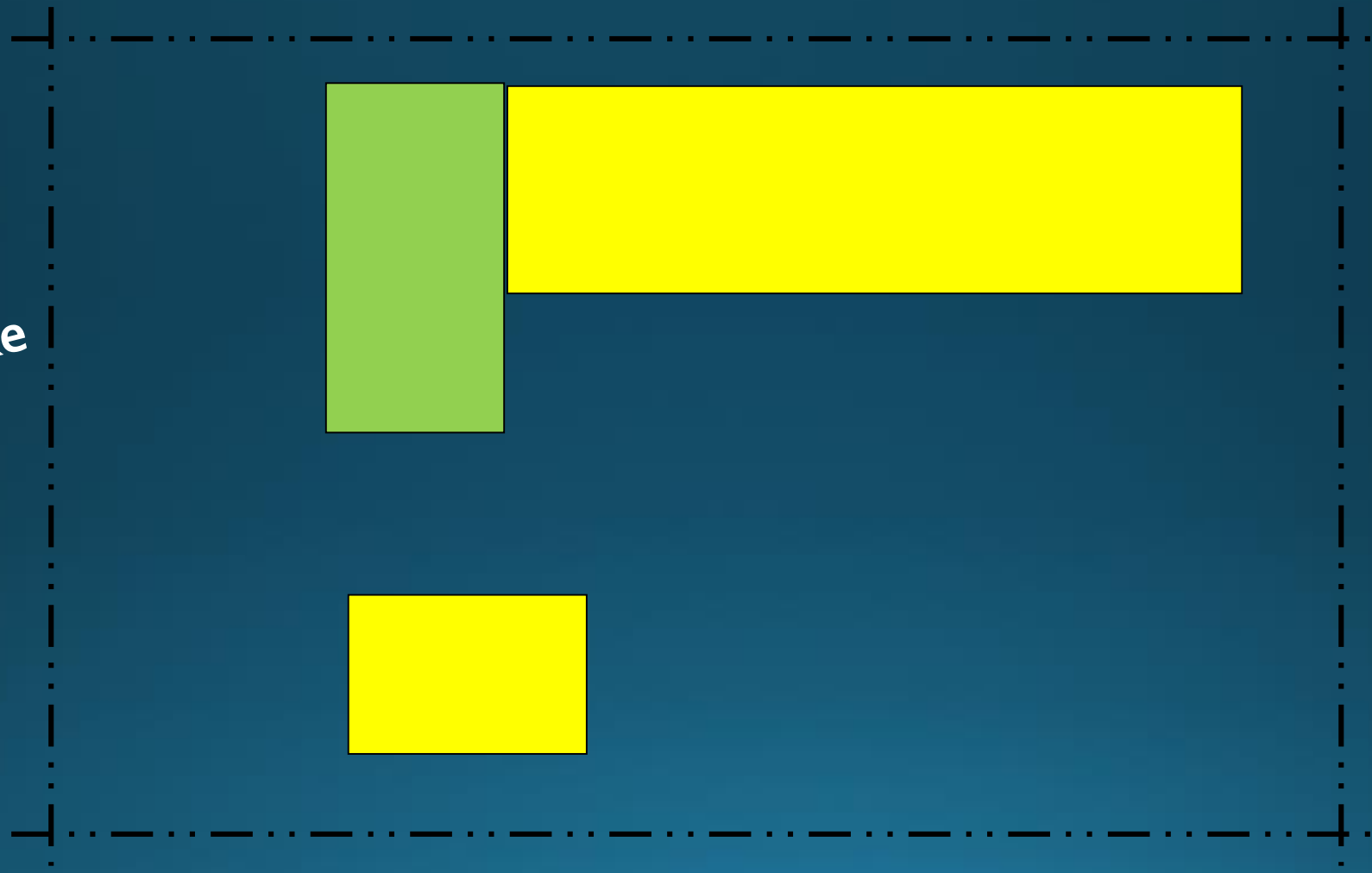


Additions and Adjacent Existing Buildings

503.1.2 Buildings on same lot. Two or more buildings on the same lot shall be regulated as separate buildings or shall be considered as portions of one building where the building height, number of stories of each building and the aggregate building area of the buildings are within the limitations specified in Sections 504 and 506. The provisions of this code applicable to the aggregate building shall be applicable to each building.

SECTION 503 GENERAL HEIGHT AND AREA LIMITATIONS

New addition shall not make existing building(s) illegal



May also be regulated as separated buildings per Section 705.3.

Temporary Equipment

- Show on Plans
- Boilers, Chillers, air handlers, etc
- **CAN 2-108**

Fire Protection Systems
(#5, #6)

CFC 33
NFPA 241

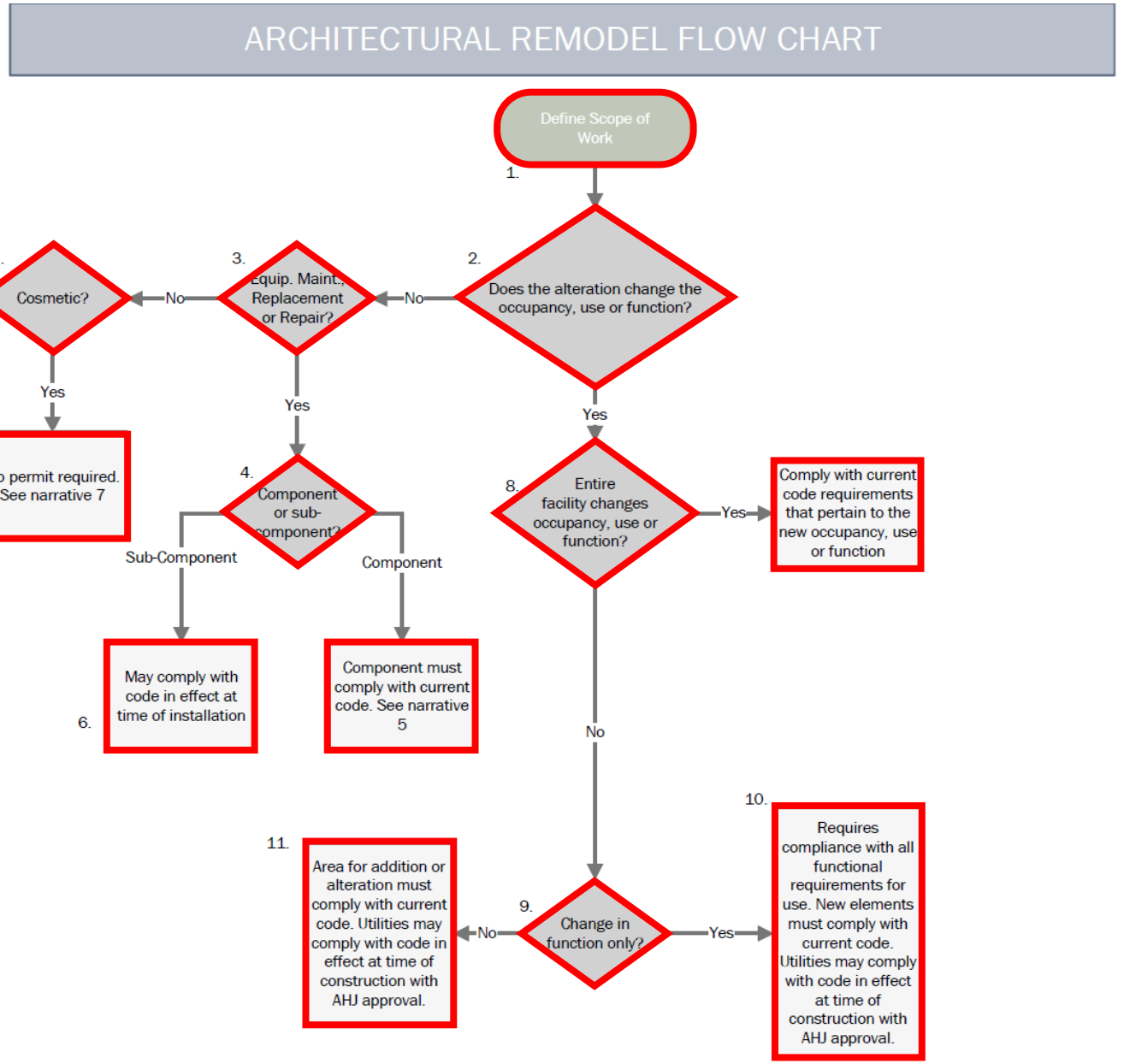
Final Step

All elements/construction to comply with current code, including CBC 1224.4.1 (#8)

DETAILED FLOW CHARTS FOR ARCHITECTURAL

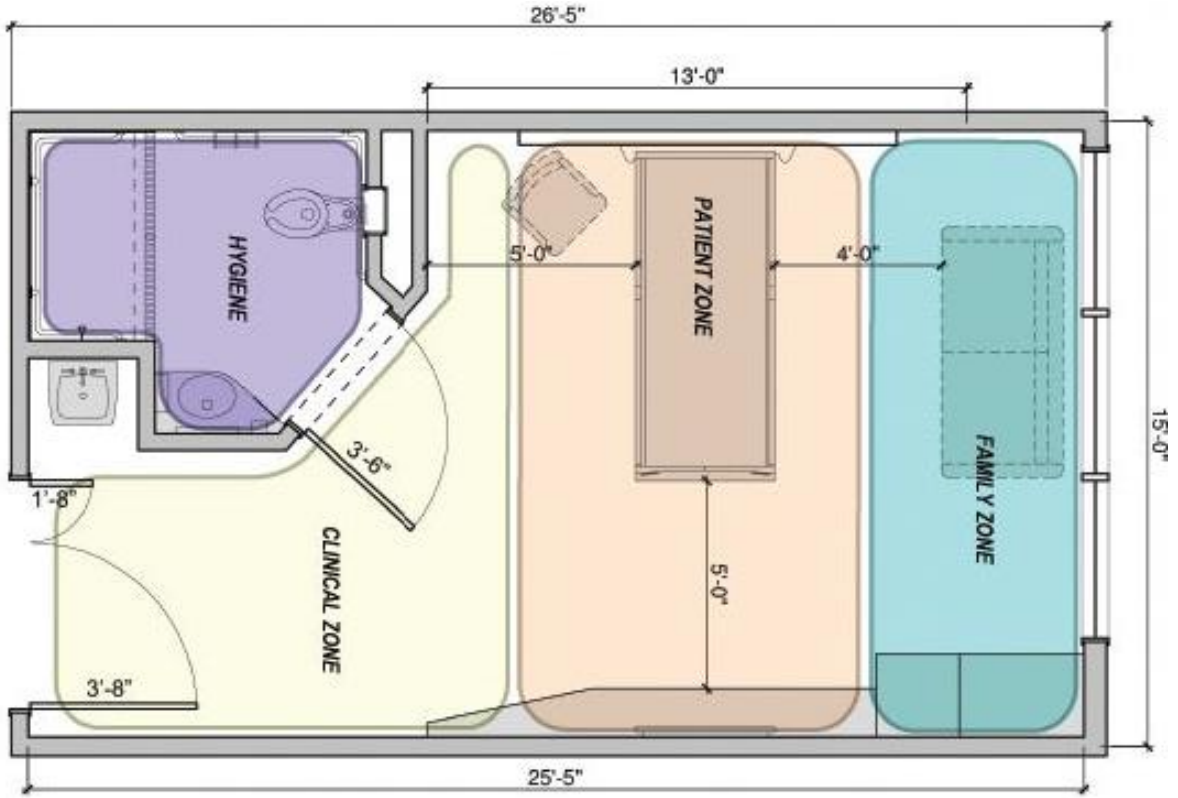
Considerations

- Change of Use/Function
- Change of Occupancy
- Change of Occupancy Load



DETAILED FLOW CHARTS FOR ARCHITECTURAL

Room Repurpose



DETAILED FLOW CHARTS FOR ARCHITECTURAL

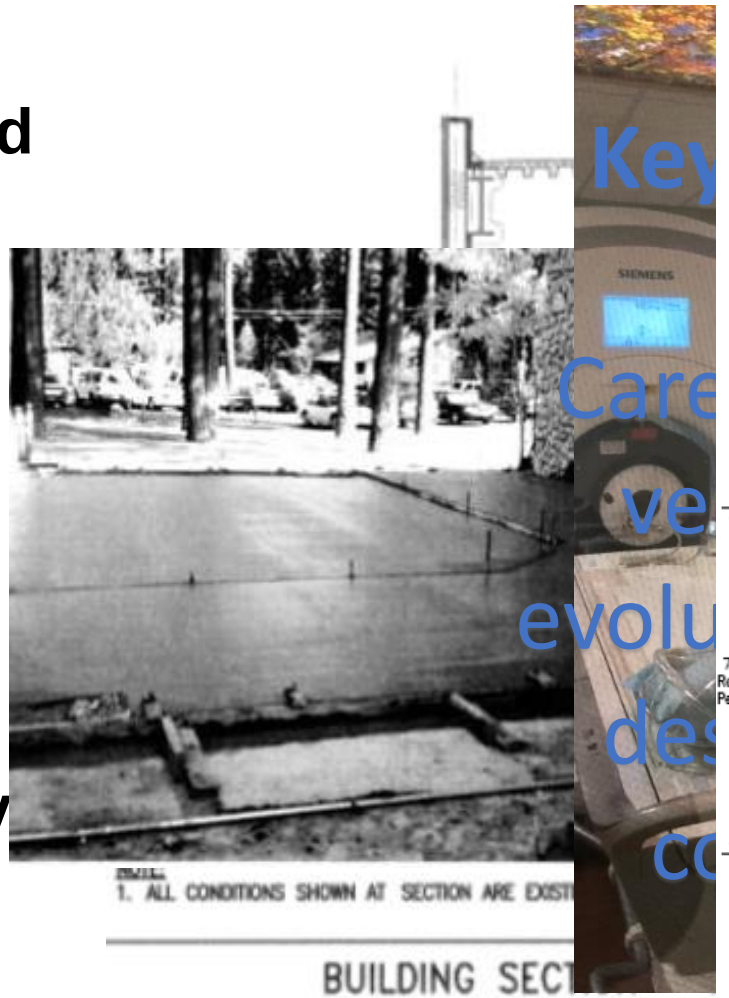
Imaging Equipment Replacement –

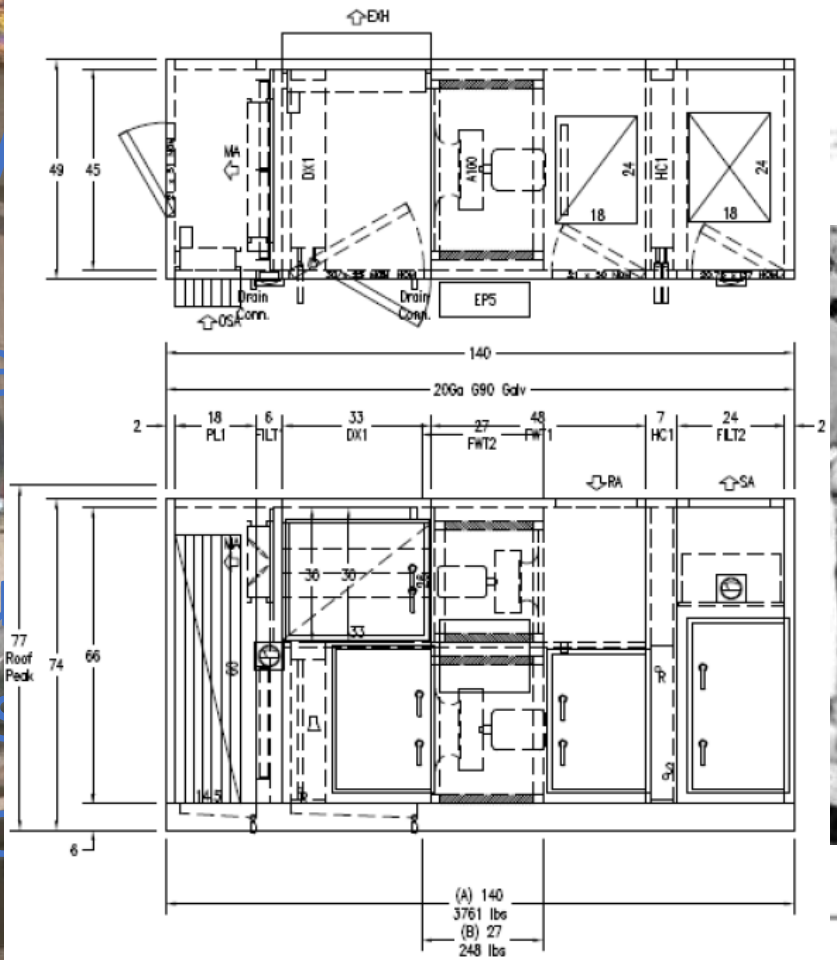
MRI

IMAGING EQUIPMENT MRI

Top Notable Issues

- Photographic records helped identify existing conditions
- Conflicting info in record drawings
- MEP Coordination
- Certification of Air Handler
- Deferred Submittals for Shielding, Equipment, Utility Line Bracing etc
- Evolving Vendor Designs





OSHPD
Office of Statewide Health Planning and Development

DETAILED FLOW CHARTS FOR ARCHITECTURAL

Imaging Equipment Replacement –

CT Scanner

DETAILED FLOW CHARTS FOR ARCHITECTURAL

Department Remodel

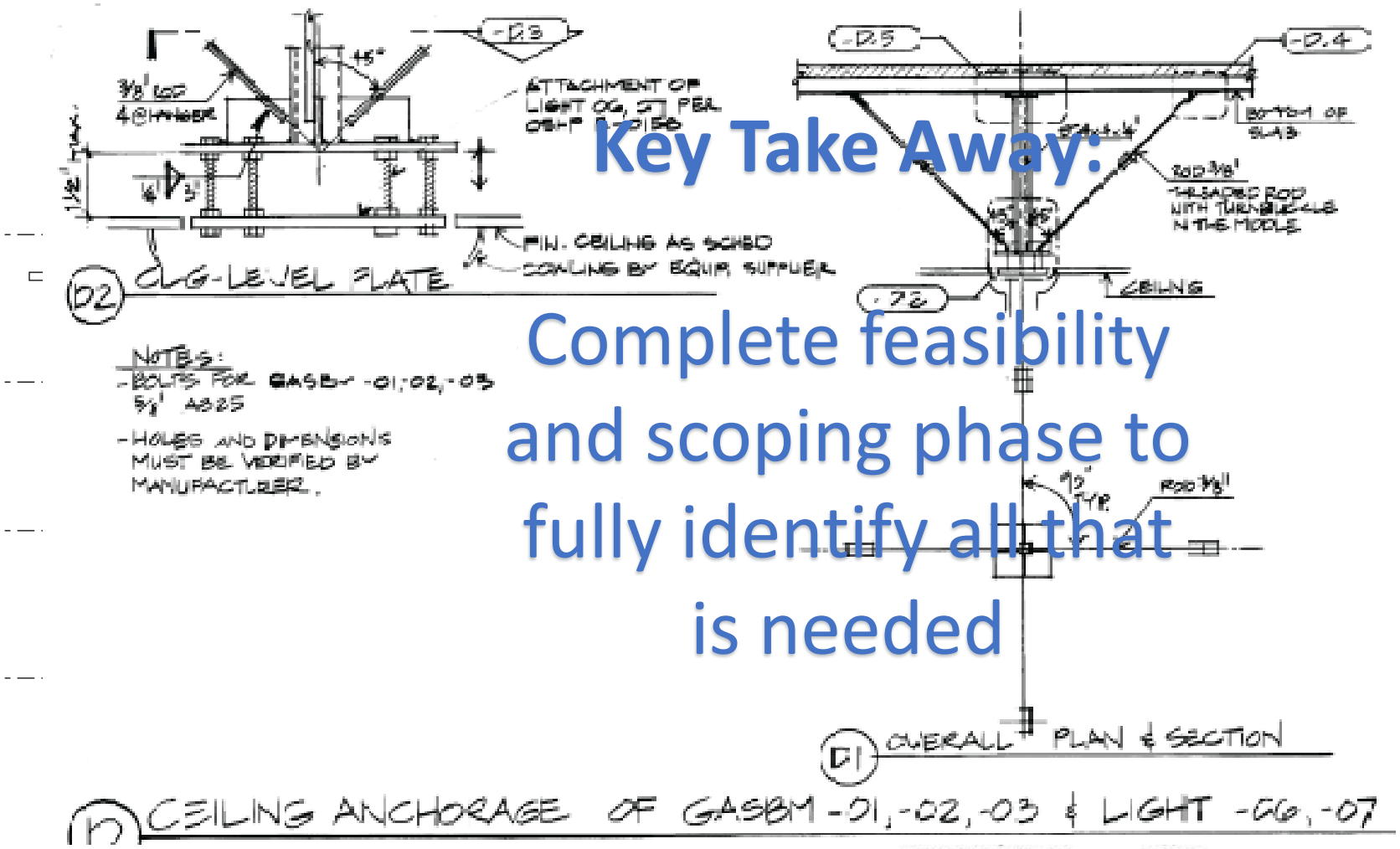
DETAILED FLOW CHARTS FOR ARCHITECTURAL

Operating Room Lighting Replacement

OR LIGHTS REPLACEMENT

Top Notable Issues

- Accountability for meaningful progress
- Strengthen Existing Supports
- Correlate As-Builts with field surveys.
- Small room challenges
- Access to Operating Rooms



Key Take Away:

Complete feasibility and scoping phase to fully identify all that is needed

OSHPD
Office of Statewide Health Planning and Development

ACCESSIBILITY SCOPING

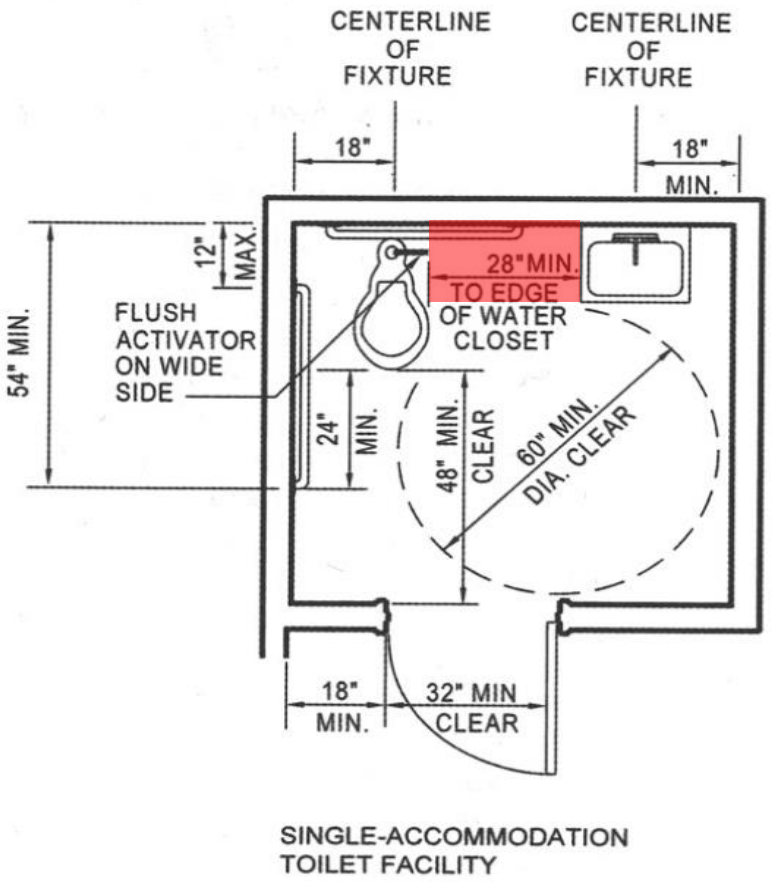
- **Identify Existing Accessibility Deficiencies**
- **Identify Path of Travel Deficiencies**
- **Current Valuation Threshold = $166,157.00**
  - Updated annually
  - Current threshold can be found at DSA
    - https://www.dgs.ca.gov/DSA/Resources/Page-Content/Resources-List-Folder/Access-Compliance-Reference-Materials
    - How does threshold apply?
    - What if valuation is exceeded?
- **Voluntary Accessibility Upgrades**

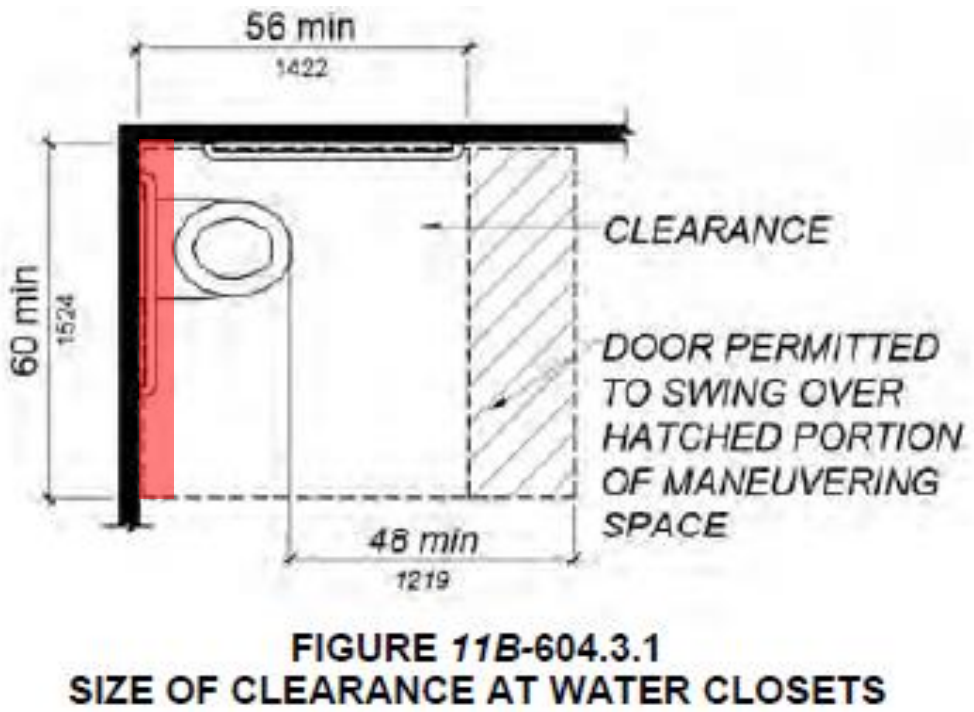
ACCESSIBILITY SCOPING

- **11B-202.4. exception 2:**
  - If the elements of a path of travel have been constructed or altered in compliance **with the accessibility requirements of the immediately preceding edition of the California Building Code**, it shall not be required to retrofit such elements…

ACCESSIBILITY SCOPING

- **Examples of toilets complying with 2010 vs 2013 code**





Previous

Current

PATH OF TRAVEL ACCESSIBILITY

CBC 202

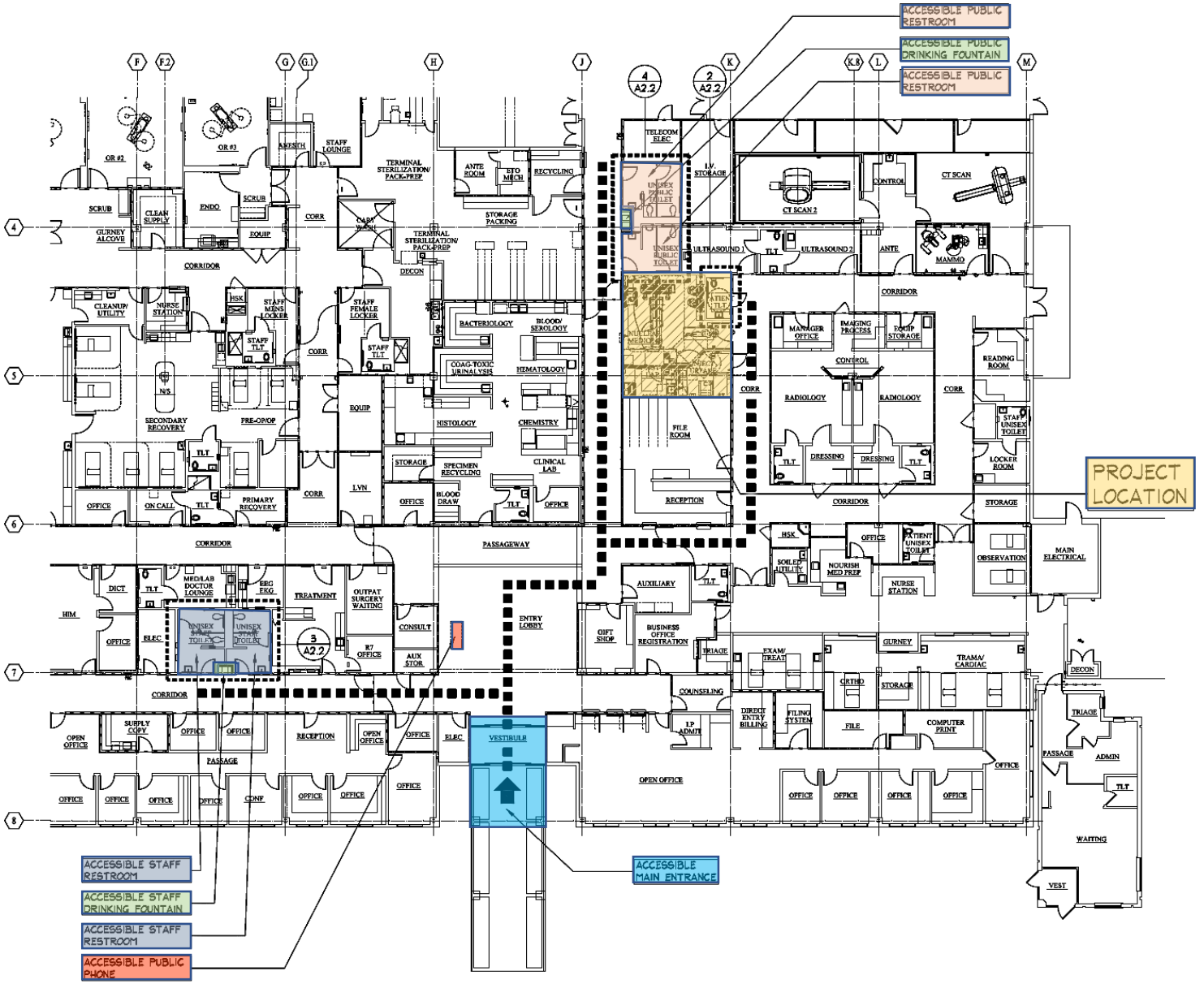
- **Path of Travel Defined**
  - *An identifiable accessible route within an existing site, building or facility by means of which a particular area may be approached, entered and exited, and which connects a particular area with an exterior approach* **(including sidewalks, streets and parking areas)***, an entrance to the facility, and other parts of the facility.*
  - *When alterations, structural repairs or additions are made to existing buildings or facilities, the term "path of travel" also includes the toilet and bathing facilities, telephones, drinking fountains and signs serving the area of work.*

PATH OF TRAVEL ACCESSIBILITY

CBC 11B-202.4

- **Path of Travel**
  - Primary Entrance
  - Toilet and Bathing Serving the Area
  - Drinking Fountains Serving the Area
  - Public Telephones Serving the Area
  - Signs

PATH OF TRAVEL ACCESSIBILITY



Examples of Path of Travel (PoT)

- Staff, Public or Patient Toilets
- Accessible Drinking Fountains
- Accessible Public Phones
- Site Modifications
- Mixed project where 90% is exempt from PoT upgrades and 10% is not – what to do?

PATH OF TRAVEL ACCESSIBILITY

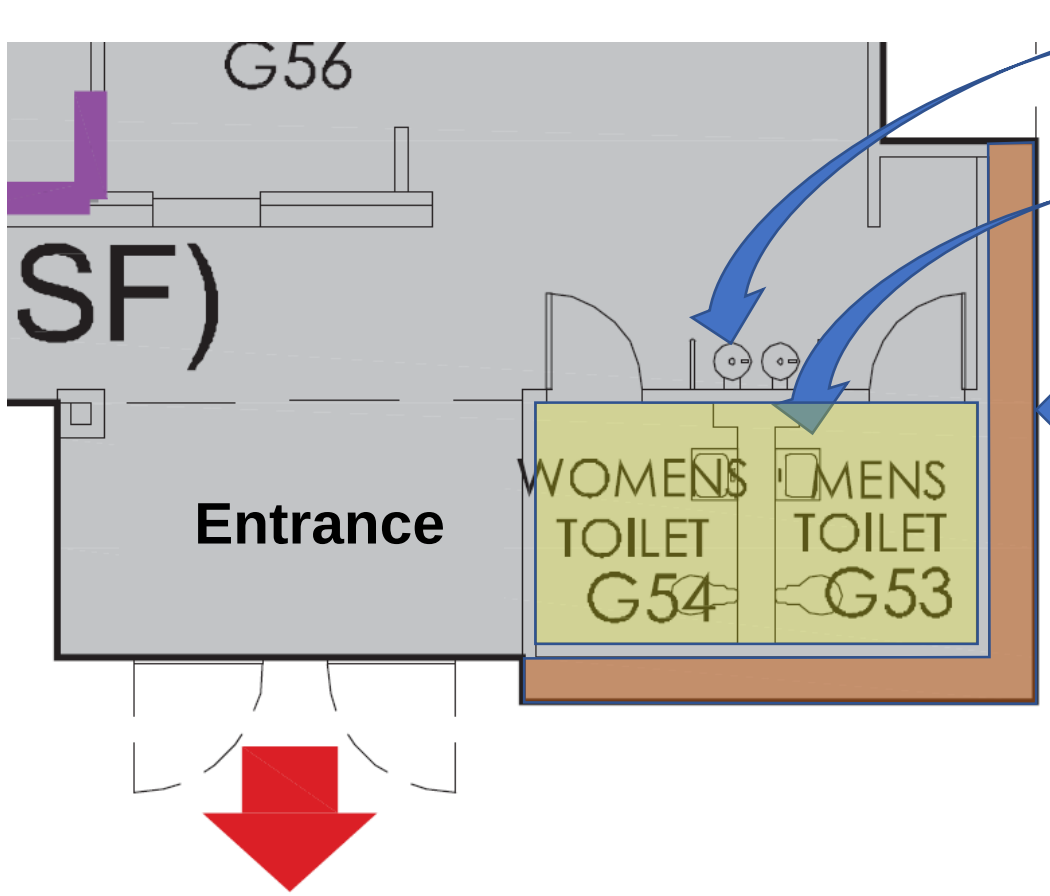
UNREASONABLE HARDSHIP. When the enforcing agency finds that compliance with the building standard would make the specific work of the project affected by the building standard infeasible, based on an overall evaluation of the following factors:

- 1. The cost of providing access.
- 2. The cost of all construction contemplated.
- 3. The impact of proposed improvements on financial feasibility of the project.
- 4. The nature of the accessibility which would be gained or lost.
- 5. The nature of the use of the facility under construction and its availability to persons with disabilities.

The details of any finding of unreasonable hardship shall be recorded and entered in the files of the enforcing agency (AMC).

PATH OF TRAVEL ACCESSIBILITY

Unreasonable Hardship Example



Compliant Drinking Fountains

Non-compliant Toilet Rooms

CMU Walls

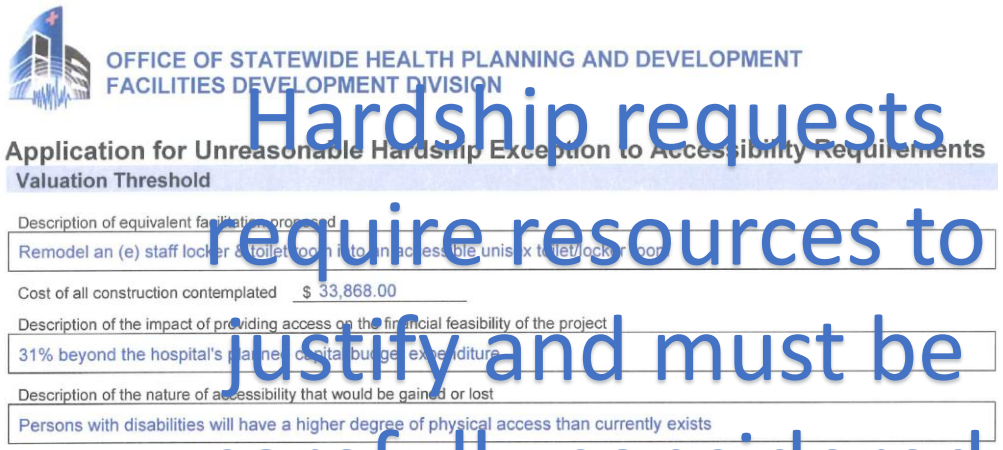
Exterior

HARDSHIP

Top Notable Issues

- Accessibility Survey of the existing facility to identify compliance and deficiencies
- Accessibility upgrade impacts on other code required spaces
- Contractor's cost estimate for full accessible compliance
- Description and contractor's cost estimate for equivalent facilitation and
- Description of impact on financial feasibility

Key Take Away:


OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

Application for Unreasonable Hardship Exception to Accessibility Requirements

Valuation Threshold

Description of equivalent facilitation proposed

Remodel an (e) staff locker & toilet room into an accessible unisex toilet/locker room

Cost of all construction contemplated $ 33,868.00

Description of the impact of providing access on the financial feasibility of the project

31% beyond the hospital's planned capital budget expenditure

Description of the nature of accessibility that would be gained or lost

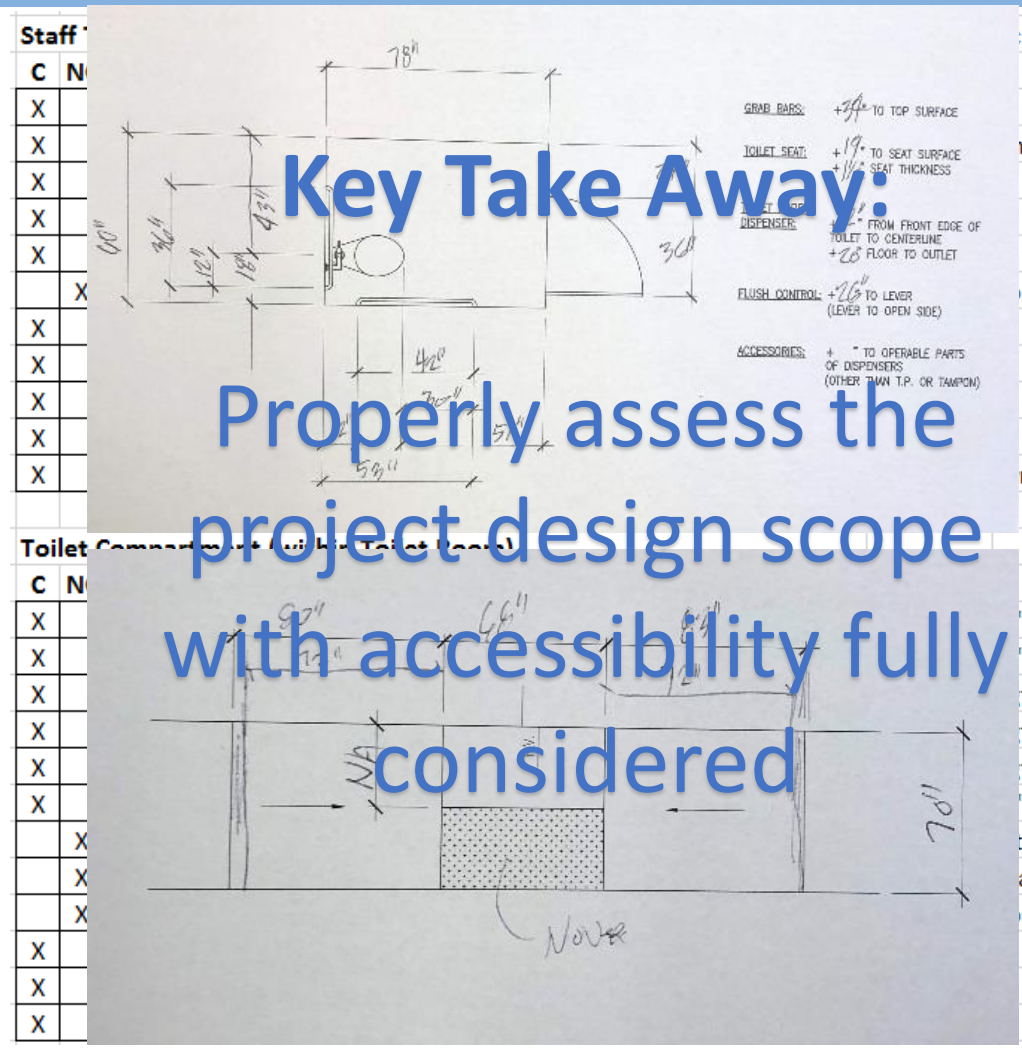
Persons with disabilities will have a higher degree of physical access than currently exists

Hardship requests require resources to justify and must be carefully considered

PATH OF TRAVEL

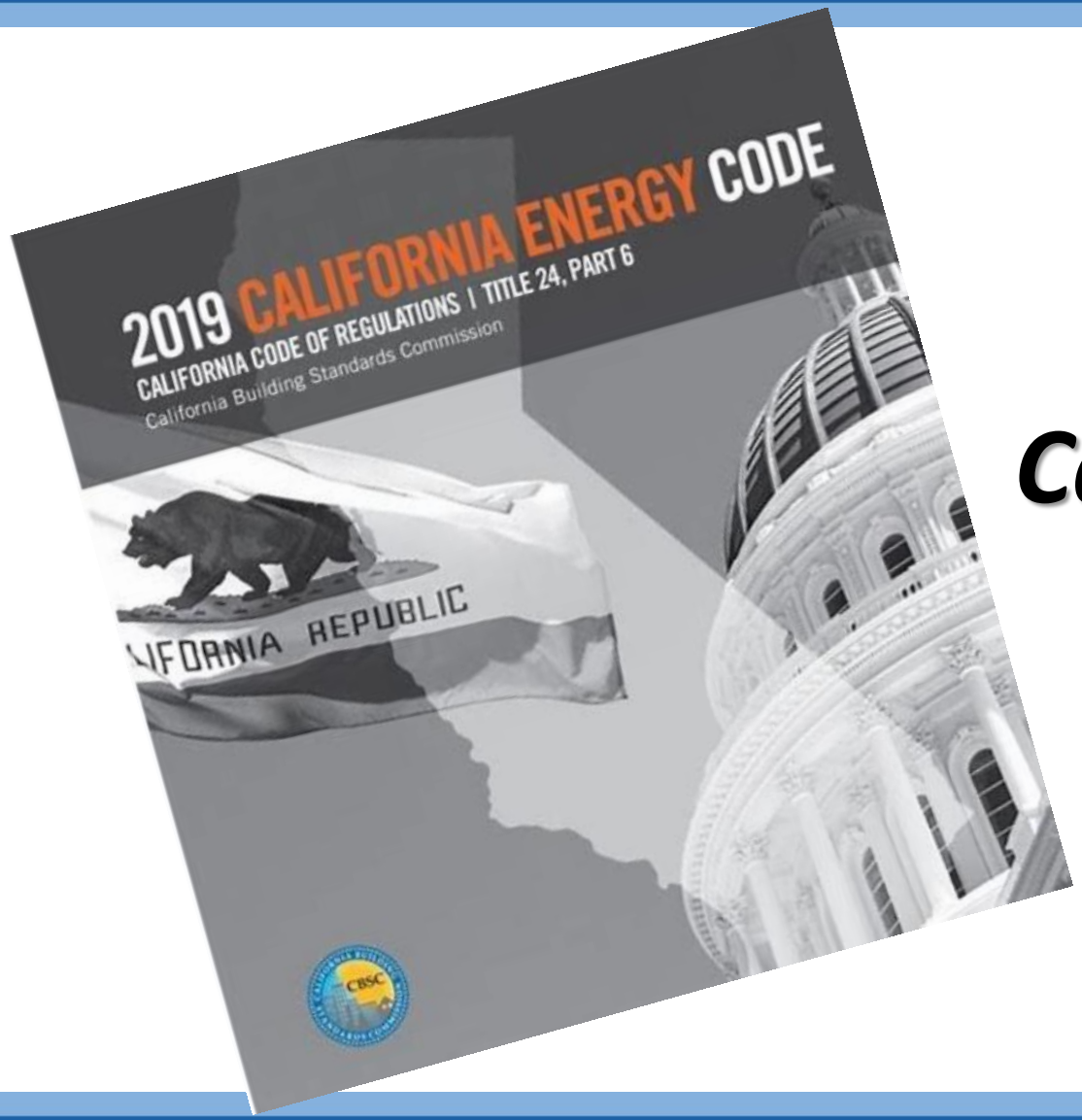
Top Notable Issues

- Field Survey existing conditions and document compliance early
- Properly calibrate expectations for accessibility with the owner
- Address known deficiencies in the design
- Field staff may identify noncompliance even if plans are approved



PATH OF TRAVEL ACCESSIBILITY

- **Exceptions to Path of Travel Upgrades**
  - Residential Dwellings
  - If in compliance with current code or immediately preceding edition
  - Additions or Alterations to Meet Accessibility Requirements
  - Alterations of Existing Parking Lots
  - Addition or Replacement of Signs
  - Projects Consisting only of Heating, Ventilation, AC, Reroofing, Electrical Work, Cosmetic Work
  - When adjusted Construction Cost Doesn’t Exceed Current Valuation Threshold 20%
  - Alterations for Installing Electric Vehicle Charging Stations.



Part 6

California Energy Code

OSHPD
Office of Statewide Health Planning and Development

PART 1 – Reference to Part 6

Chapter 7, Article 1 General

7-103. Jurisdiction. The following are within the jurisdiction of Office of Statewide Health Planning and Development:

...

(c) For hospital buildings, skilled nursing facilities and intermediate care facilities, the Office shall also enforce the regulations of the California Building Standards Code as adopted by **the California Energy Commission**, the Office of the State Fire Marshal and the Division of the State Architect/Access Compliance Section, for **Energy Conservation**, fire and life safety and accessibility compliance for persons with disabilities, respectively.

PART 6 – Enforcement

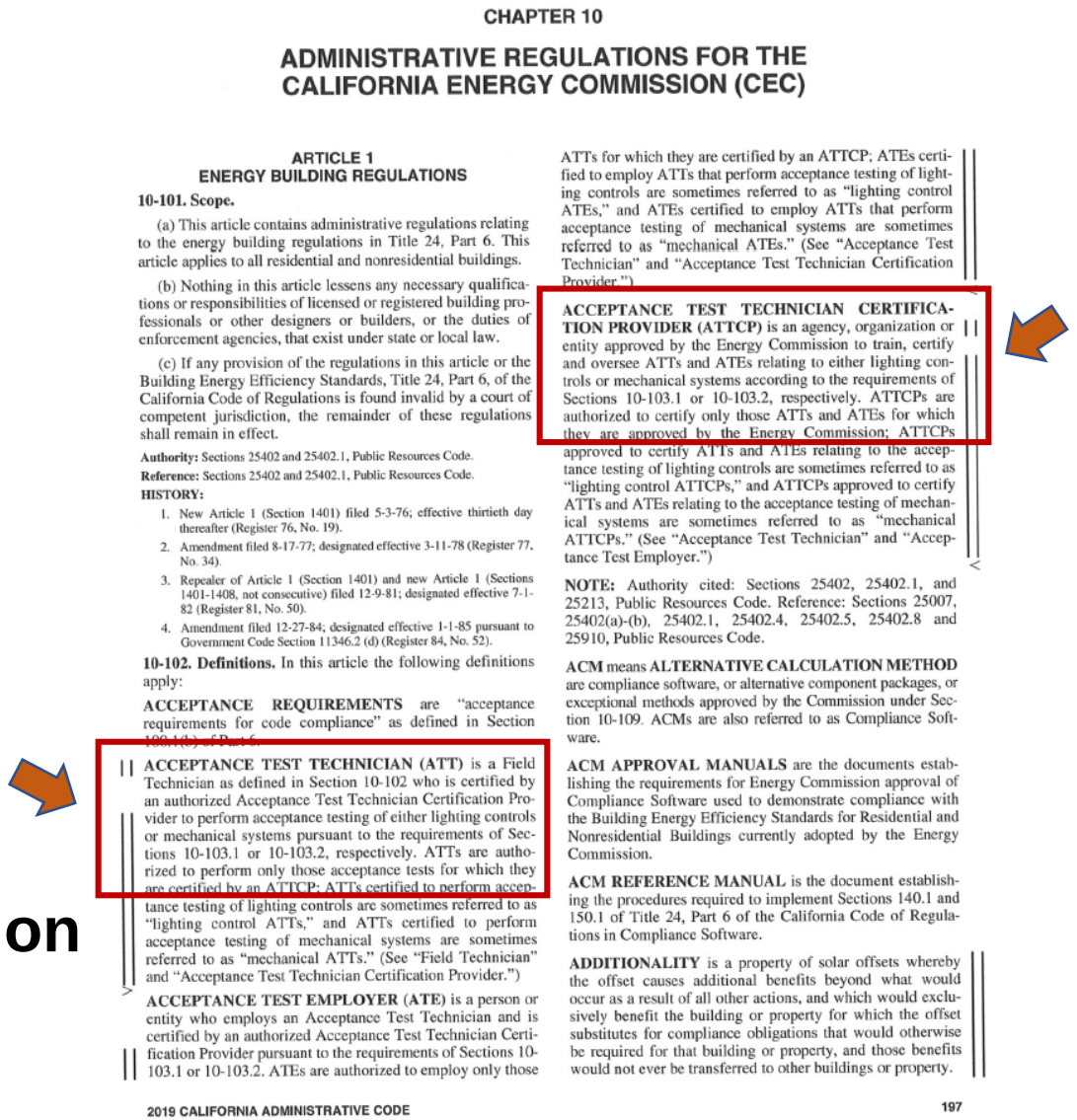
OSHPD Systems

Plan Review:

- ✓ **Exterior Assemblies & Detailing**
- ✓ **Electrical Lighting Design & Specifications**
- ✓ **Mechanical Systems Design & Specifications**
- ✓ **Energy Code Modeling**

Construction:

- ✓ **Continuous Inspection & Observation**
- ✓ **Verified Reports**
- ✓ **Commissioning & Occupancy**



CHAPTER 10

ADMINISTRATIVE REGULATIONS FOR THE CALIFORNIA ENERGY COMMISSION (CEC)

ARTICLE 1
ENERGY BUILDING REGULATIONS

10-101. Scope.

(a) This article contains administrative regulations relating to the energy building regulations in Title 24, Part 6. This article applies to all residential and nonresidential buildings.

(b) Nothing in this article lessens any necessary qualifications or responsibilities of licensed or registered building professionals or other designers or builders, or the duties of enforcement agencies, that exist under state or local law.

(c) If any provision of the regulations in this article or the Building Energy Efficiency Standards, Title 24, Part 6, of the California Code of Regulations is found invalid by a court of competent jurisdiction, the remainder of these regulations shall remain in effect.

Authority: Sections 25402 and 25402.1, Public Resources Code.

Reference: Sections 25402 and 25402.1, Public Resources Code.

HISTORY:

1. New Article 1 (Section 1401) filed 5-3-76; effective thirtieth day thereafter (Register 76, No. 19).
2. Amendment filed 8-17-77; designated effective 3-11-78 (Register 77, No. 34).
3. Repealer of Article 1 (Section 1401) and new Article 1 (Sections 1401-1408, not consecutive) filed 12-9-81; designated effective 7-1-82 (Register 81, No. 50).
4. Amendment filed 12-27-84; designated effective 1-1-85 pursuant to Government Code Section 11346.2 (d) (Register 84, No. 52).

10-102. Definitions. In this article the following definitions apply:

ACCEPTANCE REQUIREMENTS are "acceptance requirements for code compliance" as defined in Section 100.1(b) of Part 6.

ACCEPTANCE TEST TECHNICIAN (ATT) is a Field Technician as defined in Section 10-102 who is certified by an authorized Acceptance Test Technician Certification Provider to perform acceptance testing of either lighting controls or mechanical systems pursuant to the requirements of Sections 10-103.1 or 10-103.2, respectively. ATTs are authorized to perform only those acceptance tests for which they are certified by an ATTCP; ATTs certified to perform acceptance testing of lighting controls are sometimes referred to as "lighting control ATTs," and ATTs certified to perform acceptance testing of mechanical systems are sometimes referred to as "mechanical ATTs." (See "Field Technician" and "Acceptance Test Technician Certification Provider.")

ACCEPTANCE TEST EMPLOYER (ATE) is a person or entity who employs an Acceptance Test Technician and is certified by an authorized Acceptance Test Technician Certification Provider pursuant to the requirements of Sections 10-103.1 or 10-103.2. ATEs are authorized to employ only those ATTs for which they are certified by an ATTCP; ATEs certified to employ ATTs that perform acceptance testing of lighting controls are sometimes referred to as "lighting control ATEs," and ATEs certified to employ ATTs that perform acceptance testing of mechanical systems are sometimes referred to as "mechanical ATEs." (See "Acceptance Test Technician" and "Acceptance Test Technician Certification Provider.")

ACCEPTANCE TEST TECHNICIAN CERTIFICATION PROVIDER (ATTCP) is an agency, organization or entity approved by the Energy Commission to train, certify and oversee ATTs and ATEs relating to either lighting controls or mechanical systems according to the requirements of Sections 10-103.1 or 10-103.2, respectively. ATTCPs are authorized to certify only those ATTs and ATEs for which they are approved by the Energy Commission; ATTCPs approved to certify ATTs and ATEs relating to the acceptance testing of lighting controls are sometimes referred to as "lighting control ATTCPs," and ATTCPs approved to certify ATTs and ATEs relating to the acceptance testing of mechanical systems are sometimes referred to as "mechanical ATTCPs." (See "Acceptance Test Technician" and "Acceptance Test Employer.")

NOTE: Authority cited: Sections 25402, 25402.1, and 25213, Public Resources Code. Reference: Sections 25007, 25402(a)-(b), 25402.1, 25402.4, 25402.5, 25402.8 and 25910, Public Resources Code.

ACM means **ALTERNATIVE CALCULATION METHOD** are compliance software, or alternative component packages, or exceptional methods approved by the Commission under Section 10-109. ACMs are also referred to as Compliance Software.

ACM APPROVAL MANUALS are the documents establishing the requirements for Energy Commission approval of Compliance Software used to demonstrate compliance with the Building Energy Efficiency Standards for Residential and Nonresidential Buildings currently adopted by the Energy Commission.

ACM REFERENCE MANUAL is the document establishing the procedures required to implement Sections 140.1 and 150.1 of Title 24, Part 6 of the California Code of Regulations in Compliance Software.

ADDITIONALITY is a property of solar offsets whereby the offset causes additional benefits beyond what would occur as a result of all other actions, and which would exclusively benefit the building or property for which the offset substitutes for compliance obligations that would otherwise be required for that building or property, and those benefits would not ever be transferred to other buildings or property.

2019 CALIFORNIA ADMINISTRATIVE CODE 197

Application to Remodel Projects

OSHPD *versus* CEC Definition of "Alteration"

What's the Difference?

OSHPD:

[A] ALTERATION. Any construction or renovation to an existing structure other than repair or addition.

[DSA-AC] A change, addition or modification in construction, change in occupancy or use, or structural repair to an existing building or facility.

Application to Remodel Projects

CEC:

ALTERATION is any change to a building's water-heating system, space-conditioning system, lighting system, electrical power distribution system, or envelope that is not an addition.

Alteration is also any change that is regulated by Part 6:

- to an outdoor lighting system that is not an addition
- to signs located either indoors or outdoors
- to a covered process that is not an addition (fenestration)

PART 6 – California Energy Code (CEC)

SECTION 141.0
ADDITIONS, ALTERATIONS AND REPAIRS TO EXISTING NONRESIDENTIAL, HIGH-RISE RESIDENTIAL, AND HOTEL/MOTEL BUILDINGS, TO EXISTING OUTDOOR LIGHTING, AND TO INTERNALLY AND EXTERNALLY ILLUMINATED SIGNS

Additions, alterations, and repairs to existing nonresidential, high-rise residential, and hotel/motel buildings, existing outdoor lighting for these occupancies, and internally and externally illuminated signs, shall meet the requirements specified in Sections 100.0 through 110.10, and 120.0 through 130.5 that are applicable to the building project, and either the performance compliance approach (energy budgets) in Section 141.0(a)2 (for additions) or 141.0(b) 3 (for alterations), or the prescriptive compliance approach in Section 141.0(a)1 (for additions) or 141.0(b)2 (for alterations), for the Climate Zone in which the building is located. Climate zones are shown in Figure 100.1-A.

Covered process requirements for additions, alterations and repairs to existing nonresidential, high-rise residential, and hotel/motel buildings are specified in Section 141.1.

Exception to Section 141.0: Alterations to healthcare facilities are not required to comply with this Section.

PART 1 – Building Energy Efficiency Program

7-118. Building Energy Efficiency Program.

Projects that consist of any **new** elements related to A thru D shall include a Building Energy Efficiency Program with the submittal. The Program shall describe how the design of the building systems meets the owner's project requirements and include the associated Basis of Design (BOD) document required under Title 24, Part 6. The BOD shall describe the building systems to be commissioned, outline design assumptions, describe how the building systems design meets the owner's project requirements, and why the systems were selected. The BOD shall cover the following systems and components as described in the Building Energy Efficiency Standards, Nonresidential Compliance Manual:

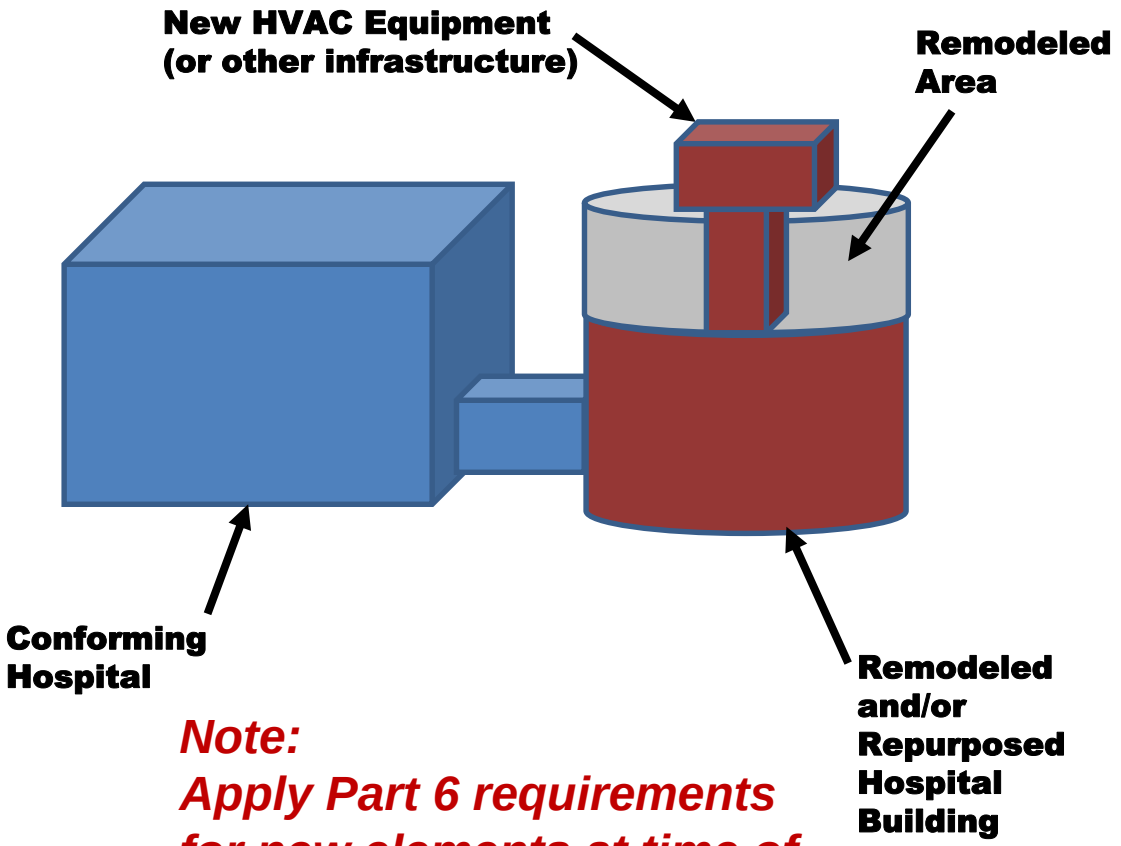
A. HVAC systems efficiencies
B. Indoor lighting systems efficiencies
C. Water heating systems efficiencies
D. Building envelope considerations

What's Regulated?

- New envelope, including walls, windows, roof, floors and other elements of the enclosure of a healthcare building
- New Mechanical Systems, limited mostly to the minimum efficiency requirements of equipment, most controls do not apply
- New Lighting systems with exceptions for specialty lighting like surgery and exam lighting among others, most controls do not apply
- New Domestic hot water systems regulating efficiency of equipment and controls

Energy Practices for Remodels

- **New Lighting & Controls**
  - ❑ Meets Part 6
- **New HVAC Equipment**
  (units, chillers, etc.)
  - ❑ Meets Part 6 (SEER)
- **New Ventilation Shaft**
  (for future build-out)
  - ❑ Meets Part 6 (duct testing)



Note:
Apply Part 6 requirements for new elements at time of construction.

Energy Opportunities for Remodels

Energy Savings Opportunities:

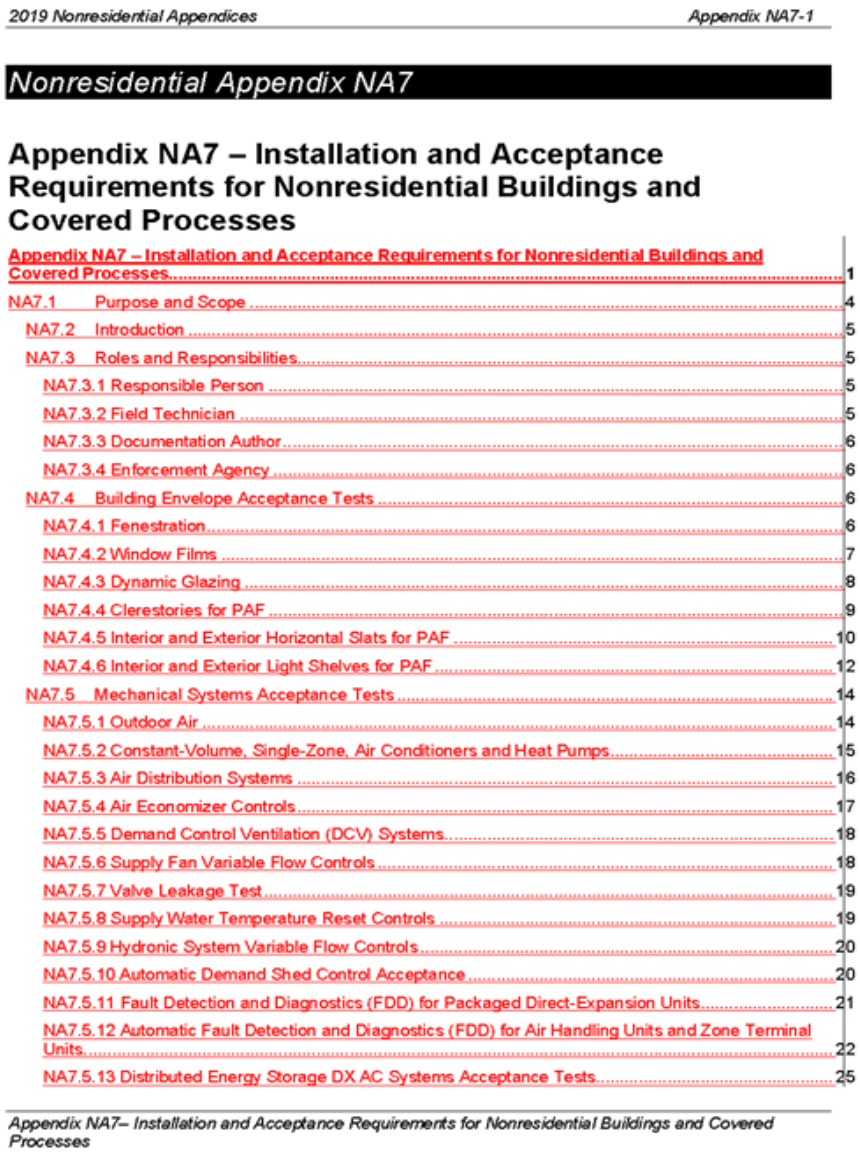
- **Revisit HVAC loads based on new occupancy:**
  - Air Changes per Hour vs Actual Loads
  - Ventilation Rates
- **Review Filtration Requirements**
- **Consider converting to Variable Volume**
- **Determine Lighting Levels**

Evaluate overall impact of Part 6 compliance for new occupancy.

PART 6 – Enforcement

Required Verifications

- ❑ **LED Lighting**
- ❑ **Equipment Efficiency Ratings**
- ❑ **Building Envelope**
  - **Insulation/Leakage**
  - **Fenestration**
    - ✓ **Glazing Type**
    - ✓ **% Fenestration**
    - ✓ **Orientation**



2019 Nonresidential Appendices — Appendix NA7-1

Nonresidential Appendix NA7

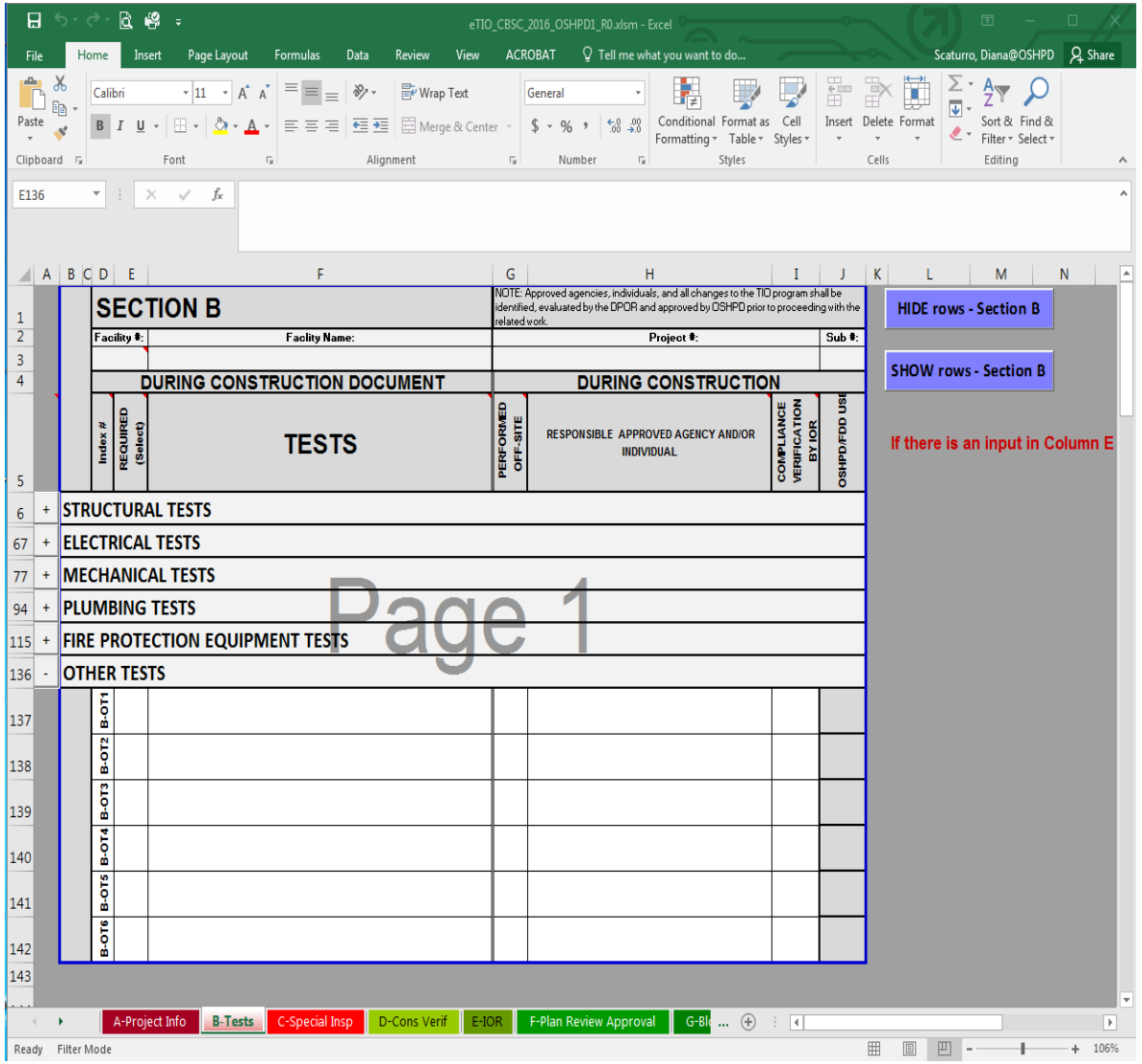
Appendix NA7 – Installation and Acceptance Requirements for Nonresidential Buildings and Covered Processes

Appendix NA7– Installation and Acceptance Requirements for Nonresidential Buildings and Covered Processes

PART 6 – Enforcement

*e*TIO Next Steps:

- Analyze Final Adopted Language
- Perform Detailed Comparison of CEC Acceptance Testing Methods *versus* OSHPD Practices
- Provide Training to Office Staff, Field Staff & IORs
- Modify *e*TIO



Help is here: *Energy Code Ace*

Receive emails when new offerings are available:

1. Create an account on EnergyCodeAce.com
2. Select one or more Business Categories in your profile

Free Tools, Training & Resources via EnergyCodeAce.com

All approved by CA Energy Commission

Available Now:

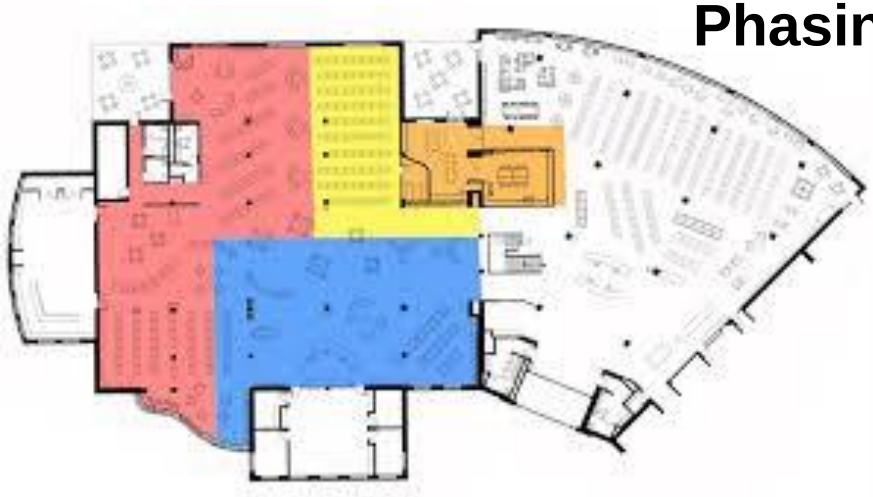
- **Fact Sheet:** What's Changed in 2019 —
  - Healthcare Facilities, Nonresidential, High-rise Residential, Hotel/Motel
  - Residential
- **Training:** Decoding What's New: Let's Talk 2019 Title 24, Part 6 – Nonresidential and Residential
  - On-demand webinar
- **Training:** 2019 Title 24, Part 6: Where We're Headed with the Nonresidential and Residential Standards
  - Traditional classroom and on-demand webinar
- **Tool:** 2019 Title 24, Part 6 Reference Ace
  - Navigate Standards documents with keyword searches and hyperlinks

DEFERRED APPROVALS

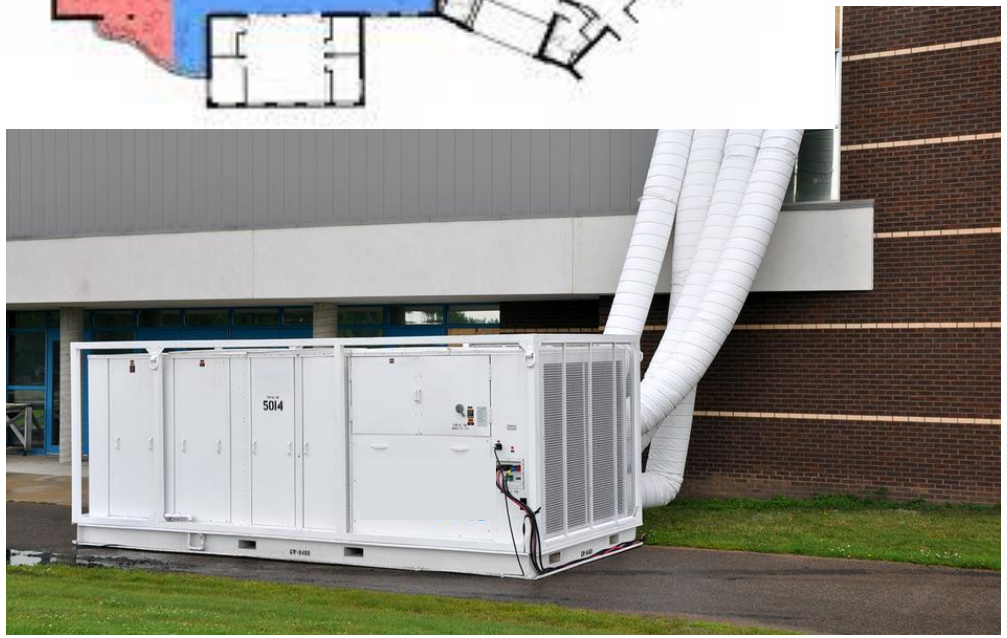
- **Common Deferred Approvals:**
  - Fire Alarm
  - Fire Sprinklers vs. Underground Main
  - Seismic Bracing
  - Curtainwall/Storefront Systems
    - Challenges for FLSO
  - Radiation/Imaging Shielding Design
  - **Imaging Equipment**
- **Standard Review Times**

ILSM / ICRA / Phasing & MOPs

Phasing



MOPs



ILSM / ICRA / Phasing & MOPs

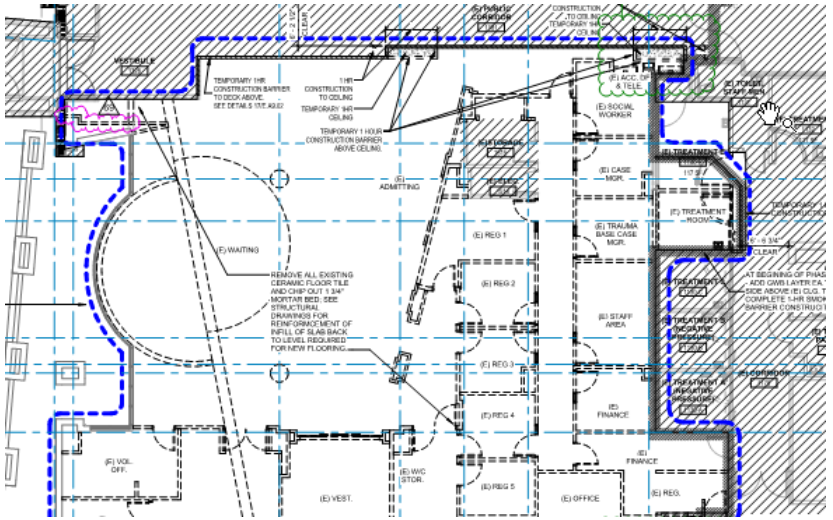
- **ICRA Expectations and Protocols**
  - Interim Life Safety Measures (ILSM)

    vs

    Infection Control Risk Assessment (ICRA)
  - Should this be in the drawings?
  - Barrier & Phasing

- **ILSM on Drawings**
  - Temporary Fire Rated walls will be inspected so they need to be shown
    - Setting up temporary walls is a critical path activity
      - Site investigation to determine conditions and what details are needed
      - Consider clearances when locating temporary walls. Note that contractors need 2’ beyond any fire rated temporary wall to set up a dust free barrier while the hard framed temporary wall is built.
      - Hard Framed temporary barriers have all of the standard inspections (framings & screw pattern). If wedge anchors are used in the bottom track these add a day to the process in order to let them set for 24hrs before being torque tested.

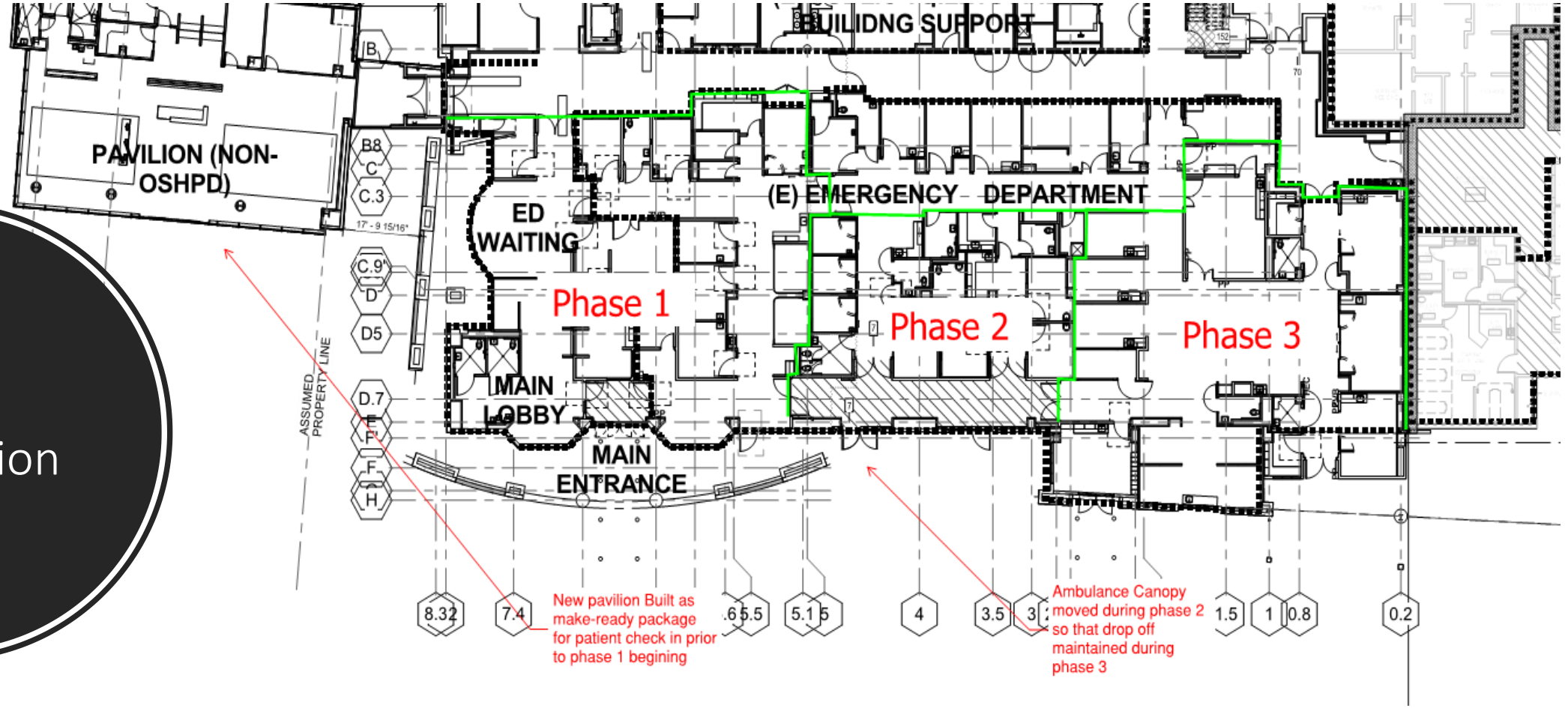
- ILSM on Drawings
  - **Provide bag of tricks/details to address existing conditions.**
    - **Leg-overs**
    - **Horizontal ratings**
    - **Penetrations (Angled Pipe, cables)**
      - **Ex. Earthquake sensor wire**
  - **Provide UL references in drawing details for wall types and penetrations to avoid additional RFIs or ACDs**



PHASING IN DESIGN

- **When to Show Phasing in Design Documents**
  - Complexity
  - Early or Partial Occupancy
- **Each Phase to be Compliant/Functional**
- **Considerations**
  - Infection Control
  - Construction Barriers
  - Egress
  - Air Balance
  - Occupancy

ED Renovation



- Consider Phasing
- Implications to patient drop off and ambulance drop off
- Interim measures to maintain patient care

MOPs

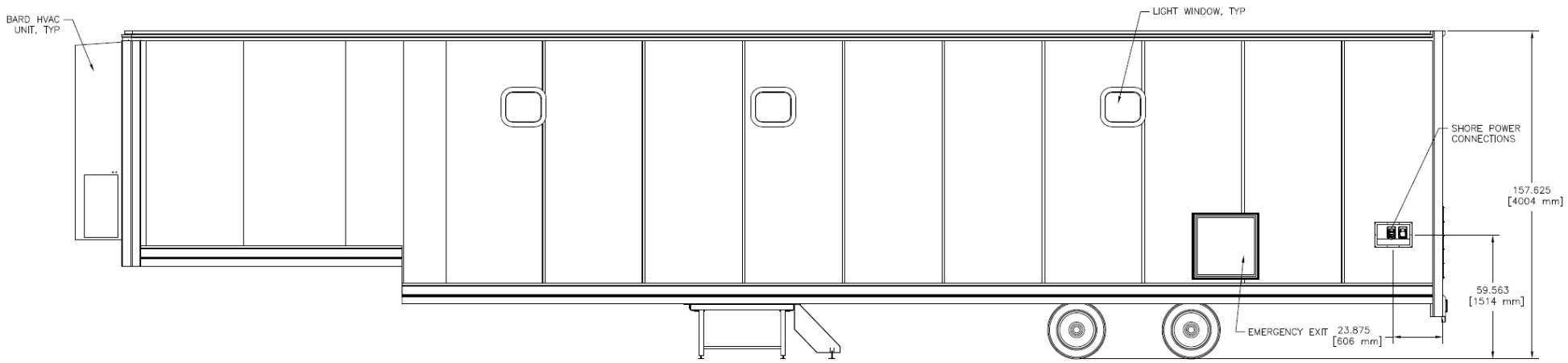
- **Methods of Procedures**
  - OSHPD vs CDPH Roles
  - Interruption of Services During Construction
  - Operation of Patient Services During Construction
  - When Shown on Plans?

Note: Not to be confused with welding procedures, etc.

TEMPORARY EQUIPMENT / UTILITIES

- **Air Balance**
- **Generators**
- **Air Handling Units**
- **Pharmacy Compounding Mobile Units**
- **Temporary vs Interim**

CAN 2-108



OSHPD 1R UNIQUE CONSIDERATIONS

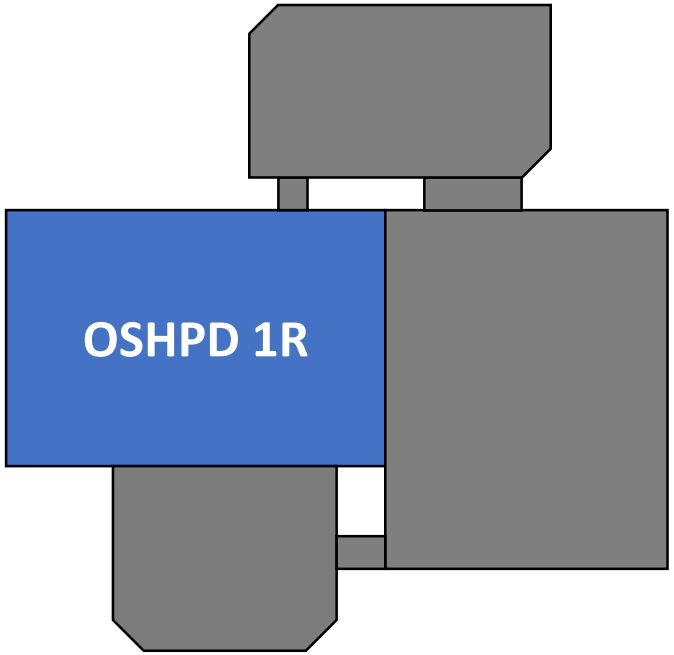
- **REMOVED FROM ACUTE CARE SERVICE [OSHPD 1R]**
  - Buildings that previously provided basic and/or supplemental services, as defined in Section 1224.3, that have
    - Primarily Remodels
    - been removed from acute care service in compliance with Part 10 California Existing Building Code Chapter 3A,
    - and remain under the jurisdiction of the Office of Statewide Health Planning & Development (OSHPD).

OSHPD 1R UNIQUE CONSIDERATIONS

- **The removal of General Acute Care Hospital (GACH) services from a building may result in a change of:**
  - Use
  - Occupancy
  - Function
  - Licensure
  - A combination of the above for all or a part of the building
- **It may also involve a change of the authority having jurisdiction from OSHPD to the local enforcement agency if the SPC Building meets specified seismic separation and fire protection criteria (i.e. "Freestanding")**

OSHPD *versus* Local Jurisdiction

NOT Freestanding

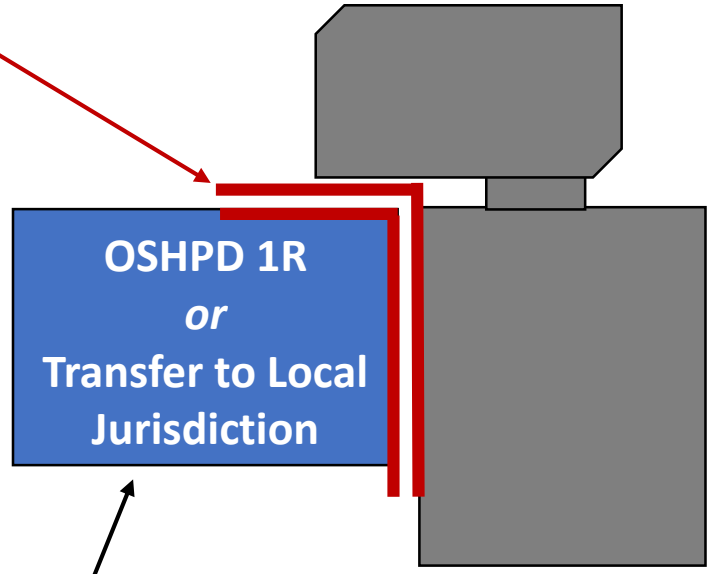


"FREESTANDING"

means…

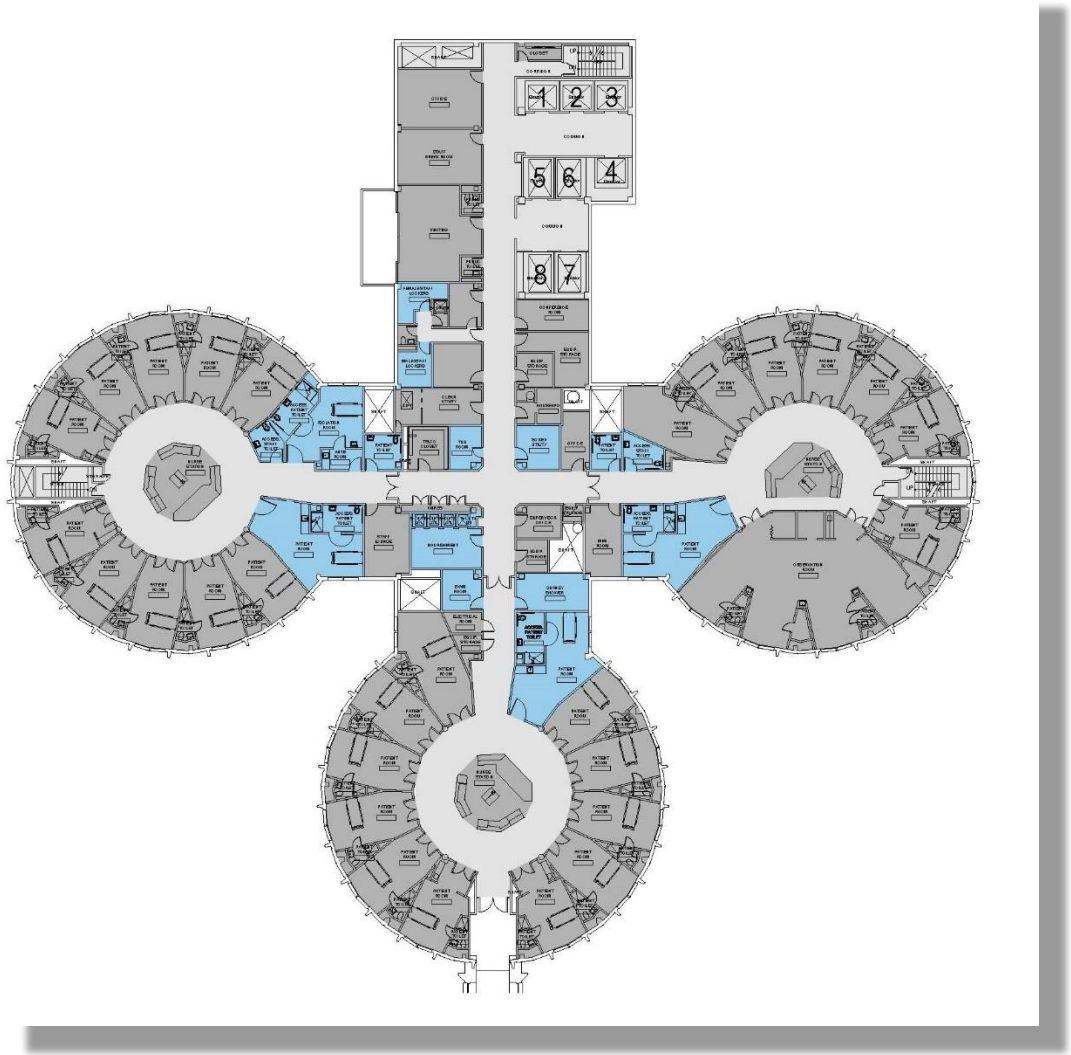
Structural *and* Fire Separation *per* California Building Code (CAC 7-111) *and within* Height/Area Limits on Same Lot

Freestanding



Building must have a qualifying service per Part 10, Chapter 3A to remain as "OSHPD 1R" under OSHPD jurisdiction

Proposal– 9th Floor Psychiatric



Existing Areas To Remain

Remodeled Areas

Current Deficiencies:

- 10% Accessible Patient Rooms
- Accessible support spaces
- Not anti-ligerture

SPYCH OPTION

VACATED SPACES

CEBC Section 309A.6

With the removal of general acute care services, the vacated space must be re-classified with an intended occupancy as required under CBC 302 (Occupancy Classification).

If the hospital determines that the building or space in the SPC building removed from general acute care service will be vacant, the hospital shall demonstrate that unsafe conditions as described in CBC 116.1 are not created.

VACATED SPACES

CBC Section 116.1

Structures or existing equipment that are or hereafter become unsafe, insanitary or deficient because of inadequate means of egress facilities, inadequate light and ventilation, or which constitute a fire hazard, or are otherwise dangerous to human life or the public welfare, or that involve illegal or improper occupancy or inadequate maintenance, shall be deemed an unsafe condition. Unsafe structures shall be taken down and removed or made safe, as the building official deems necessary and as provided for this section. A vacant structure that is not secured against entry shall be deemed unsafe.

VACATED SPACES

CFC Section 311

Temporarily unoccupied buildings, structures, premises, or portions thereof, including tenant spaces, shall be safeguarded and maintained in accordance with CFC Sections 311.1.1 through 311.6.

- Must be secured
- Must be protected

VACATED SPACES

Vacating Licensed Service Space

(unoccupied – no change in use)

- Example: Existing space to remain empty
- No modifications nor the creation of a project
- OSHPD must be notified
- Space to be maintained as is, although the air volume may be reduced in accordance with CMC Section 407.1.1, and general lighting may be turned off
- Emergency egress lighting must remain in service
- The space must remain accessible for emergency egress and for use as a smoke compartment

VACATED SPACES

Vacating Licensed Service Space

(occupied with interim use)

- Example: Beds in “suspense” must be able to resume that former use within a 24-hour period in order to remain in compliance with Title 22
  - Temporary use as offices
- This places a limitation on interim use of the space
- Interim use must be approved in writing by CDPH in accordance with Title 22
- The change in use (primary function) and any related construction must also be approved by OSHPD in accordance with Title 24

Vacant Spaces:

Requires Building Permit to Address:

- Unsafe, Insanitary
  - Deficiencies from Inadequate:
    - Means of Egress
    - Lighting
    - Ventilation
- Fire Hazards
  - Dangers to:
    - Human Life
    - Public Welfare

- Unsafe Conditions Due To:
  - Illegal Occupancy
  - Improper Occupancy
  - Inadequate Maintenance
  - Unsecured Against Unauthorized Entry

TIPS FOR SUCCESS

- **Research**
  - **Thorough Survey and Document Existing Conditions**
  - **Code Analysis of New and Original Construction**
  - **Accessibility Impacts**
  - **Maintaining Operations**
  - **Temporary Utilities, Equipment**
  - **Phased Occupancy/Swing Spaces**
- **Pre-Design Meeting Process**
  - **Scheduling Meeting**
  - **Suggested Project Materials**
  - **“Conditions” Statement on Plans**
  - **Annotate any Agreements with OSHPD on documents (MOU/IRPs)**
  - **Accurate Construction Estimate**
- ***e*CPR & AMC Processes**

TIPS FOR SUCCESS - LIMITING UNKNOWNS

- **Record Drawings Review**
- **Thorough Site Investigation**
  - Panel readings, air balance
- **When Is A Permit Not Required?**
- **There's more to starting a project than getting a permit**
  - Certificate of Insurance
  - IOR Application and Work Load
  - TIO
- **FREER Manual**
- **Design for Spaces Being Vacated**


LUNCH
BREAK

Remodel PLUS

V. Construction

KEY OBJECTIVES

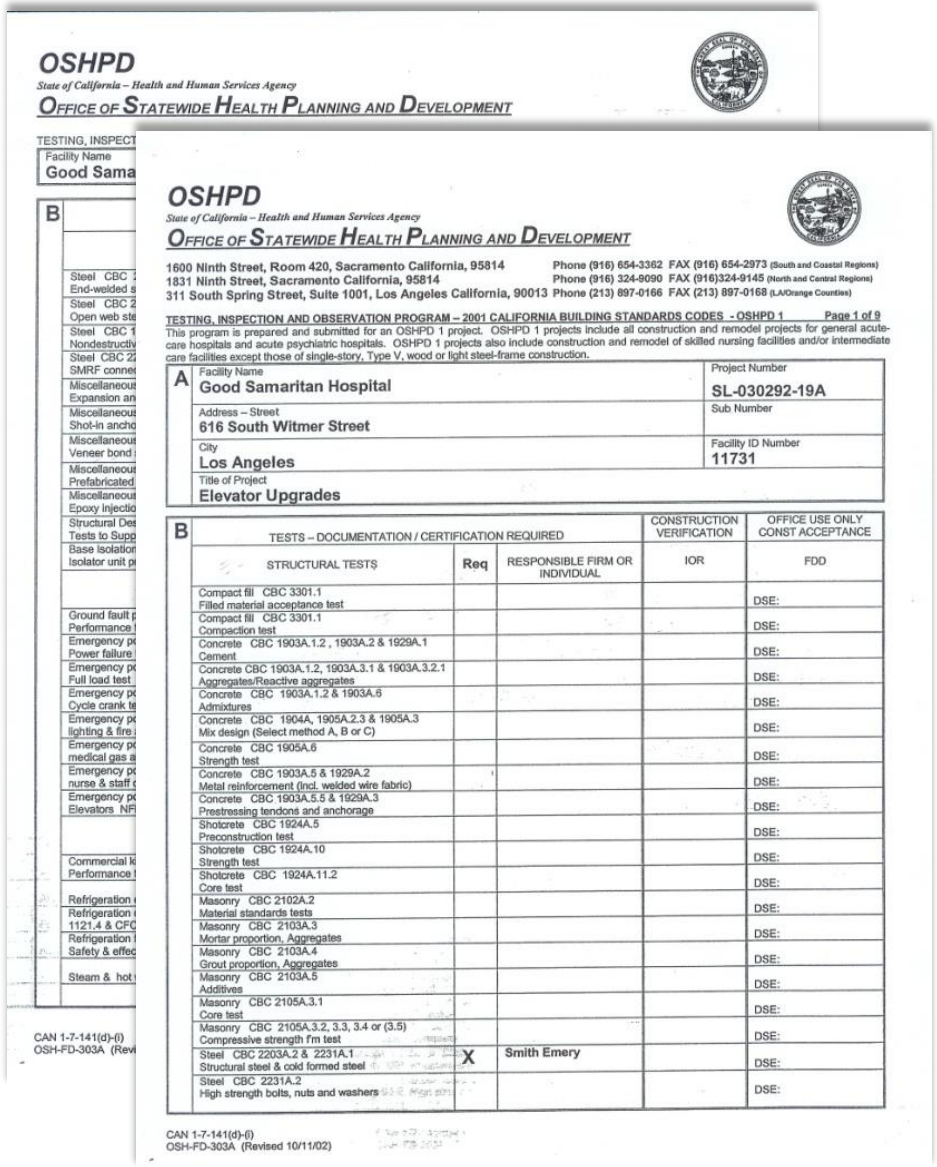
CONSTRUCTION

- Start of Construction
- Reviews During Construction
- Overview Of The *"HEALTH FACILITY REMODEL FLOW CHART"*
- Applicable PINs & CANs
- Inspections
- Compliant *Versus* Non-Compliant Existing Construction
- FLSO for Construction
- Construction in an Operating Facility
- Culture
- Resources
- Project Closeout

START OF CONSTRUCTION

- **Preconstruction Meetings**
  - Needed on Small Projects?
    - Complexity
  - Where? When?
  - What to Discuss?
  - Who Leads and Who Should Attend?
- **TIO Completion**
- **IOR and Discovered Conditions That Do Not Match Approved Plans**
- **Constructability Issues Missed in Design**
- **IOR and/or CO/DSE/FLSO Disagreement with Approved Plans (RAD)**
- **Design Team, GC, IOR and Owner survey existing conditions together for familiarity and awareness**

Purpose of Test, Inspection and Observation Program



OSHPD
State of California – Health and Human Services Agency
OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT

1600 Ninth Street, Room 420, Sacramento California, 95814 Phone (916) 654-3362 FAX (916) 654-2973 (South and Coastal Regions)
1831 Ninth Street, Sacramento California, 95814 Phone (916) 324-9090 FAX (916)324-9145 (North and Central Regions)
311 South Spring Street, Suite 1001, Los Angeles California, 90013 Phone (213) 897-0166 FAX (213) 897-0168 (LA/Orange Counties)

TESTING, INSPECTION AND OBSERVATION PROGRAM – 2001 CALIFORNIA BUILDING STANDARDS CODES - OSHPD 1 Page 1 of 9

This program is prepared and submitted for an OSHPD 1 project. OSHPD 1 projects include all construction and remodel projects for general acute-care hospitals and acute psychiatric hospitals. OSHPD 1 projects also include construction and remodel of skilled nursing facilities and/or intermediate care facilities except those of single-story, Type V, wood or light steel-frame construction.

A	Facility Name	Project Number
	Good Samaritan Hospital	SL-030292-19A
	Address – Street: 616 South Witmer Street	Sub Number
	City: Los Angeles	Facility ID Number: 11731
	Title of Project: Elevator Upgrades	

B	TESTS – DOCUMENTATION / CERTIFICATION REQUIRED			CONSTRUCTION VERIFICATION	OFFICE USE ONLY CONST ACCEPTANCE
	STRUCTURAL TESTS	Req	RESPONSIBLE FIRM OR INDIVIDUAL	IOR	FDD
	Compact fill CBC 3301.1 Filled material acceptance test				DSE:
	Compact fill CBC 3301.1 Compaction test				DSE:
	Concrete CBC 1903A.1.2 , 1903A.2 & 1929A.1 Cement				DSE:
	Concrete CBC 1903A.1.2, 1903A.3.1 & 1903A.3.2.1 Aggregates/Reactive aggregates				DSE:
	Concrete CBC 1903A.1.2 & 1903A.6 Admixtures				DSE:
	Concrete CBC 1904A, 1905A.2.3 & 1905A.3 Mix design (Select method A, B or C)				DSE:
	Concrete CBC 1905A.6 Strength test				DSE:
	Concrete CBC 1903A.5 & 1929A.2 Metal reinforcement (incl. welded wire fabric)				DSE:
	Concrete CBC 1903A.5.5 & 1929A.3 Prestressing tendons and anchorage				DSE:
	Shotcrete CBC 1924A.5 Preconstruction test				DSE:
	Shotcrete CBC 1924A.10 Strength test				DSE:
	Shotcrete CBC 1924A.11.2 Core test				DSE:
	Masonry CBC 2102A.2 Material standards tests				DSE:
	Masonry CBC 2103A.3 Mortar proportion, Aggregates				DSE:
	Masonry CBC 2103A.4 Grout proportion, Aggregates				DSE:
	Masonry CBC 2103A.5 Additives				DSE:
	Masonry CBC 2105A.3.1 Core test				DSE:
	Masonry CBC 2105A.3.2, 3.3, 3.4 or (3.5) Compressive strength f'm test				DSE:
	Steel CBC 2203A.2 & 2231A.1 Structural steel & cold formed steel	X	Smith Emery		DSE:
	Steel CBC 2231A.2 High strength bolts, nuts and washers				DSE:

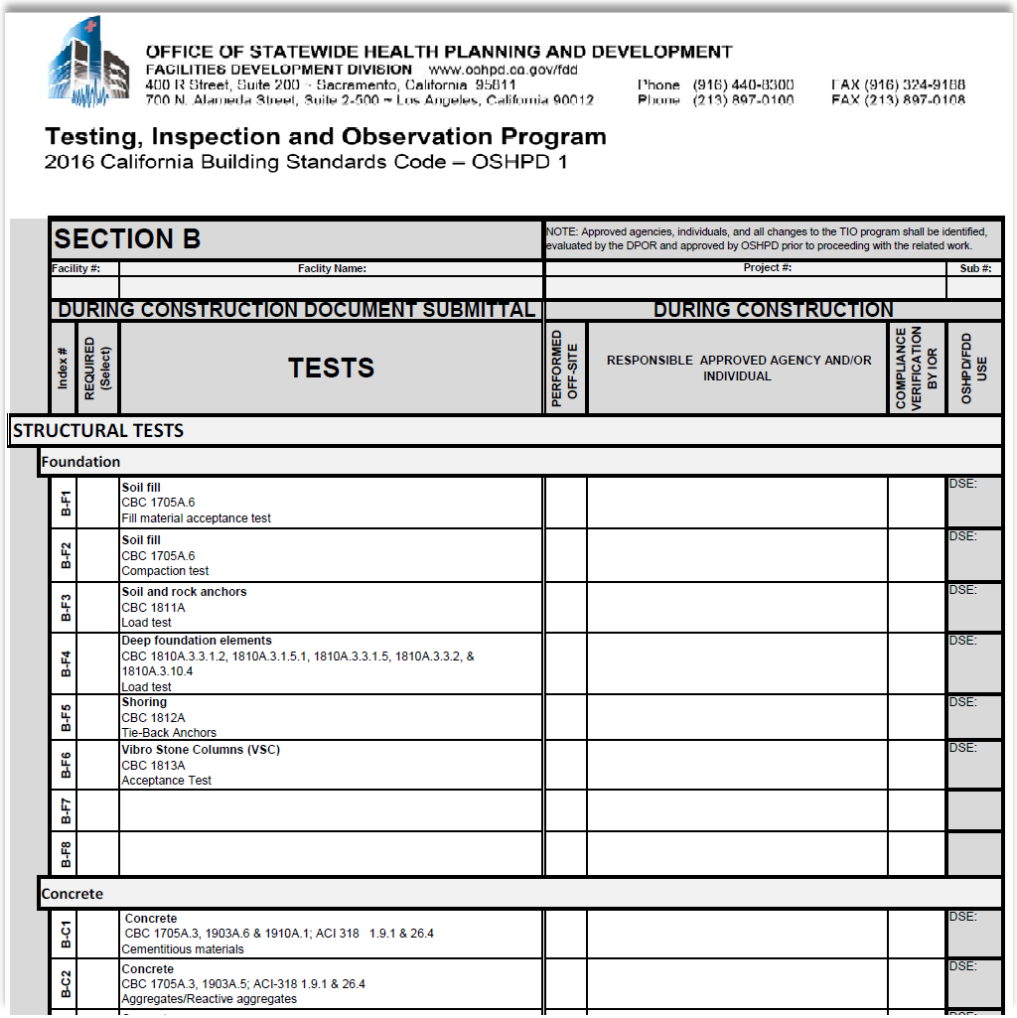
CAN 1-7-141(d)-(i)
OSH-FD-303A (Revised 10/11/02)

The TIO Program is used for:

- Documenting all required tests and inspections required for the project
- Identifying each professional who must confirm that work is completed in compliance with plans & specifications.

TESTING, INSPECTION AND OBSERVATION PROGRAM

- Purpose
- Prepared by Design Professional of Record
- Development
  - How to Use
  - TBDs



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION www.oshpd.ca.gov/fdd
400 R Street, Suite 200 - Sacramento, California 95811 Phone (916) 440-8300 FAX (916) 324-9188
700 N. Alameda Street, Suite 2-500 - Los Angeles, California 90012 Phone (213) 897-0100 FAX (213) 897-0108

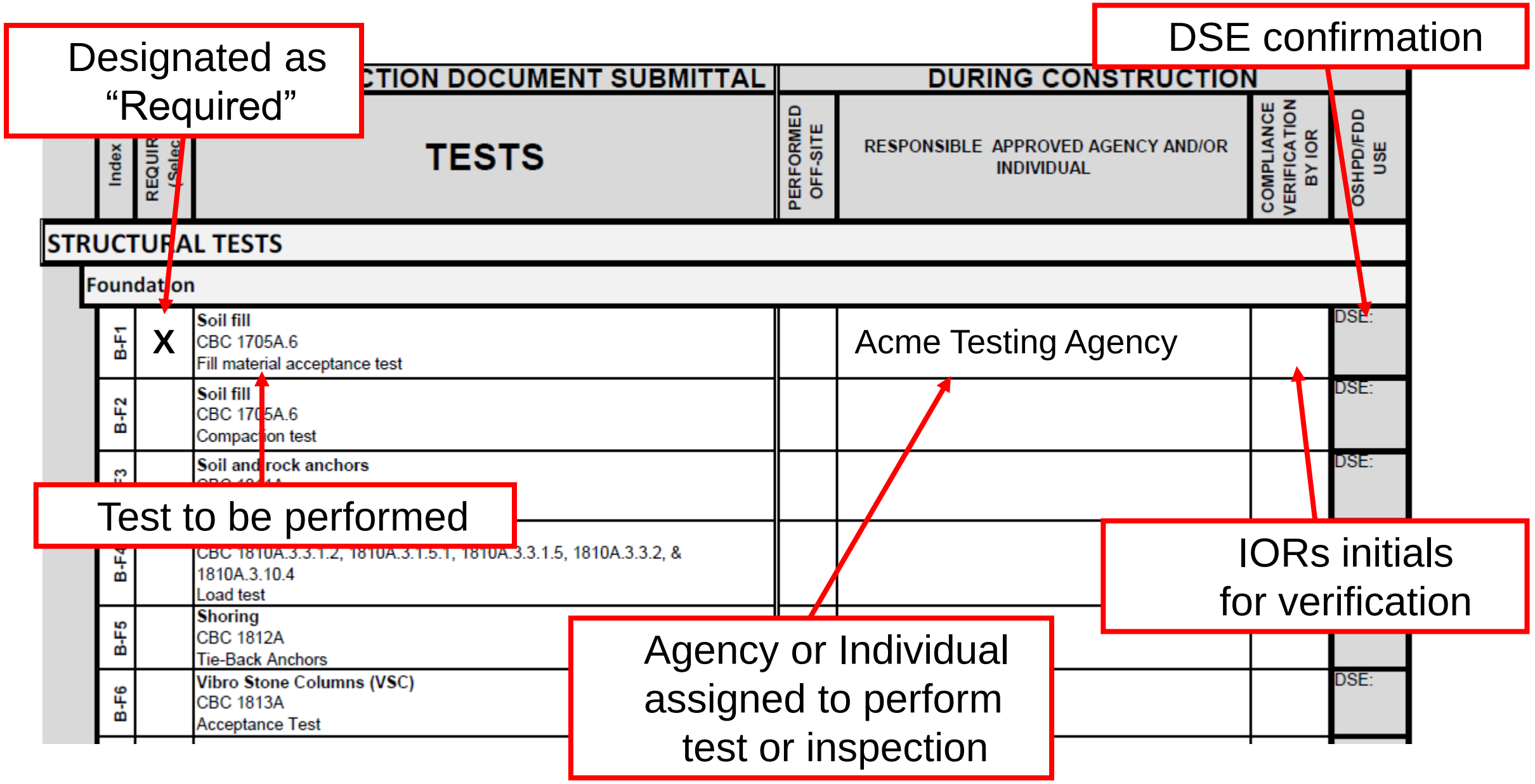
Testing, Inspection and Observation Program
2016 California Building Standards Code – OSHPD 1

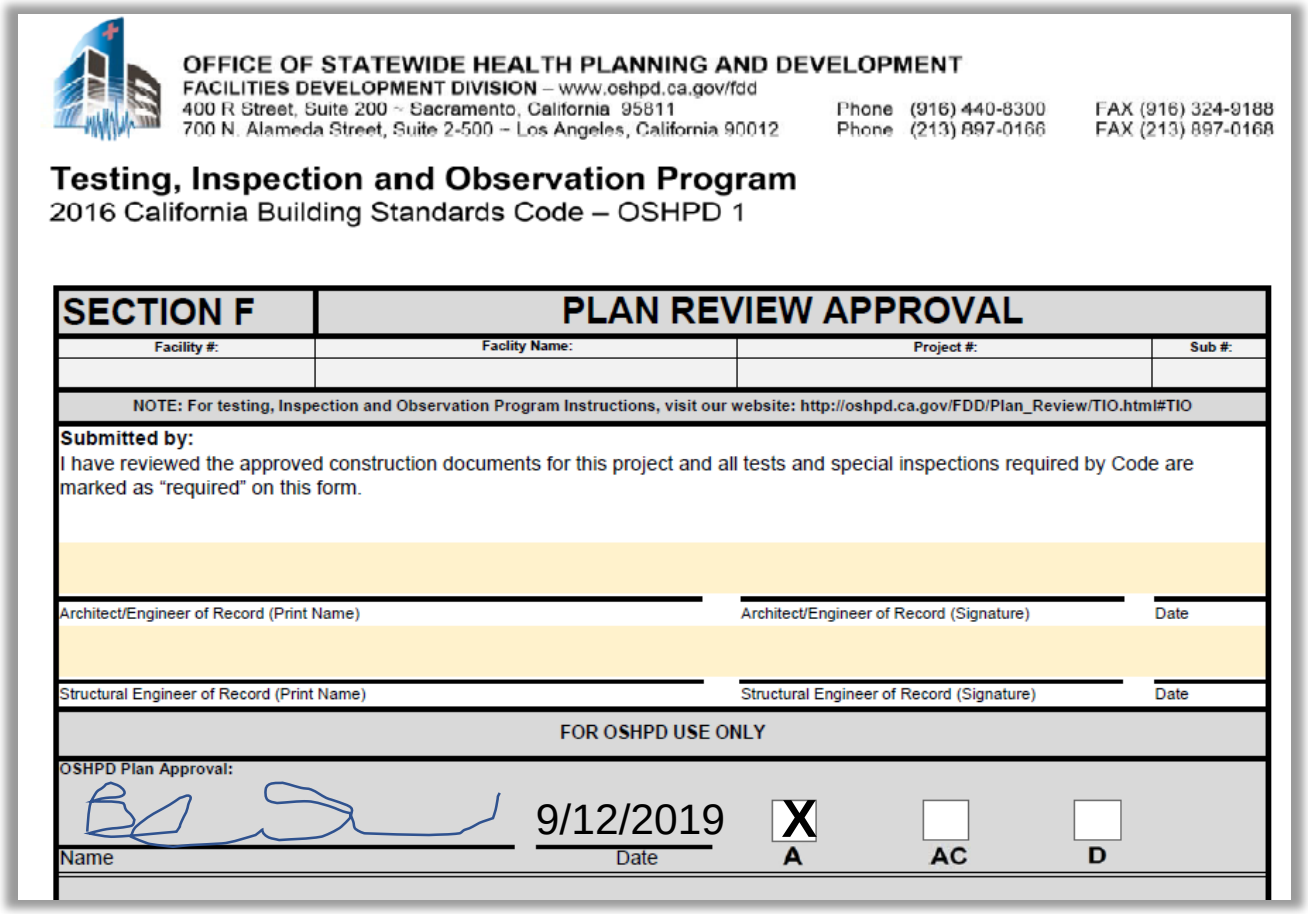
SECTION B

NOTE: Approved agencies, individuals, and all changes to the TIO program shall be identified, evaluated by the DPOR and approved by OSHPD prior to proceeding with the related work.

Facility #:	Facility Name:	Project #:	Sub #:

DURING CONSTRUCTION DOCUMENT SUBMITTAL			DURING CONSTRUCTION			
Index #	REQUIRED (Select)	TESTS	PERFORMED OFF-SITE	RESPONSIBLE APPROVED AGENCY AND/OR INDIVIDUAL	COMPLIANCE VERIFICATION BY IOR	OSHPD/FDD USE
STRUCTURAL TESTS						
Foundation						
B-F1		**Soil fill** CBC 1705A.6 Fill material acceptance test				DSE:
B-F2		**Soil fill** CBC 1705A.6 Compaction test				DSE:
B-F3		**Soil and rock anchors** CBC 1811A Load test				DSE:
B-F4		**Deep foundation elements** CBC 1810A.3.3.1.2, 1810A.3.1.5.1, 1810A.3.3.1.5, 1810A.3.3.2, & 1810A.3.10.4 Load test				DSE:
B-F5		**Shoring** CBC 1812A Tie-Back Anchors				DSE:
B-F6		**Vibro Stone Columns (VSC)** CBC 1813A Acceptance Test				DSE:
B-F7						
B-F8						
Concrete						
B-C1		**Concrete** CBC 1705A.3, 1903A.6 & 1910A.1; ACI 318 1.9.1 & 26.4 Cementitious materials				DSE:
B-C2		**Concrete** CBC 1705A.3, 1903A.5; ACI-318 1.9.1 & 26.4 Aggregates/Reactive aggregates				DSE:


Designated as "Required"
DSE confirmation
CTION DOCUMENT SUBMITTAL
DURING CONSTRUCTION
Index
REQUIR (Selec
TESTS
PERFORMED OFF-SITE
RESPONSIBLE APPROVED AGENCY AND/OR INDIVIDUAL
COMPLIANCE VERIFICATION BY IOR
OSHPD/FDD USE
STRUCTURAL TESTS
Foundation
B-F1
X
Soil fill
CBC 1705A.6
Fill material acceptance test
Acme Testing Agency
DSE:
B-F2
Soil fill
CBC 1705A.6
Compaction test
DSE:
Soil and rock anchors
DSE:
Test to be performed
B-F4
CBC 1810A.3.3.1.2, 1810A.3.1.5.1, 1810A.3.3.1.5, 1810A.3.3.2, & 1810A.3.10.4
Load test
IORs initials for verification
B-F5
Shoring
CBC 1812A
Tie-Back Anchors
B-F6
Vibro Stone Columns (VSC)
CBC 1813A
Acceptance Test
DSE:
Agency or Individual assigned to perform test or inspection



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION – www.oshpd.ca.gov/fdd
400 R Street, Suite 200 ~ Sacramento, California 95811 Phone (916) 440-8300 FAX (916) 324-9188
700 N. Alameda Street, Suite 2-500 – Los Angeles, California 90012 Phone (213) 897-0166 FAX (213) 897-0168

Testing, Inspection and Observation Program
2016 California Building Standards Code – OSHPD 1

SECTION F — PLAN REVIEW APPROVAL

Facility #:	Facility Name:	Project #:	Sub #:

NOTE: For testing, Inspection and Observation Program Instructions, visit our website: http://oshpd.ca.gov/FDD/Plan_Review/TIO.html#TIO

Submitted by:
I have reviewed the approved construction documents for this project and all tests and special inspections required by Code are marked as "required" on this form.

Architect/Engineer of Record (Print Name) | Architect/Engineer of Record (Signature) | Date

Structural Engineer of Record (Print Name) | Structural Engineer of Record (Signature) | Date

FOR OSHPD USE ONLY

OSHPD Plan Approval:

Name | 9/12/2019 Date | X A | AC | D

OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION – www.oshpd.ca.gov/fdd
400 R Street, Suite 200 ~ Sacramento, California 95811 Phone (916) 440-8300 FAX (916) 324-9188
700 N. Alameda Street, Suite 2-500 – Los Angeles, California 90012 Phone (213) 897-0166 FAX (213) 897-0168

Testing, Inspection and Observation Program
2016 California Building Standards Code – OSHPD 1

SECTION G — BUILDING PERMIT APPROVAL

Facility #:	Facility Name:	Project #:	Sub #:

NOTE: For testing, Inspection and Observation Program Instructions, visit our website: http://oshpd.ca.gov/FDD/Plan_Review/TIO.html#TIO

Samples of Test and Inspection Reports are: ***(NOT required for tests performed by laboratories approved through OPAA Program)***
- ☐ Attached
- ☐ To be provided following determination of the responsible firm(s) or individual(s). *Samples shall be submitted to and approved by the Office, prior to proceeding with the work that requires tests or special inspections.*
- ☐ Not applicable. *Project has no required tests or special inspections.*

Required test and inspection reports shall be prepared and submitted to OSHPD/FDD within ____ days of the completion of all tests and inspections. If not designated, all reports shall be submitted to the Office within 15 calendar days.

In addition to the preprinted tests and special inspections identified on this form, this program includes additional tests and special inspections as indicated:
- ☐ Other Tests
- ☐ Other Special Inspections
- ☐ See Attachment

Verification that approved test and inspection agencies are objective, competent and independent as required by the CBC 2016 Section 1703A.1.1:
- ☐ Verification of independence and acceptance of test and inspection agencies by Registered Design Professional (RDP) in responsible charge In accordance with the CAC Section 7-141.
- ☐ Testing agency qualification for approval or approval of testing agencies through OPAA program.
- ☐ Inspection agency qualification for approval.

This program has been prepared and submitted for an OSHPD 1 project. OSHPD 1 projects include all construction and remodel projects for general acute care hospitals and acute psychiatric hospitals. OSHPD 1 projects also include construction and remodel of skilled nursing facilities and/or intermediate care facilities except those of single-story, Type V, wood or light steel-frame construction.
Submitted by:

Architect/Engineer of Record (Print Name) | Professional License # | Architect/Engineer of Record (Signature) | Date

FOR OSHPD USE ONLY

OSHPD TI&O Program Approval:

Name | 9/16/2019 Date | X A | AC | D

OSHPD

State of California – Health and Human Services Agency

OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT

TESTING, INSPECTION AND OBSERVATION PROGRAM – 2007 CALIFORNIA BUILDING STANDARDS CODES - OSHPD 1 Page 8 of 13

Facility Name	Project Number	Sub number

D

CONSTRUCTION OBSERVATION AND REPORTING

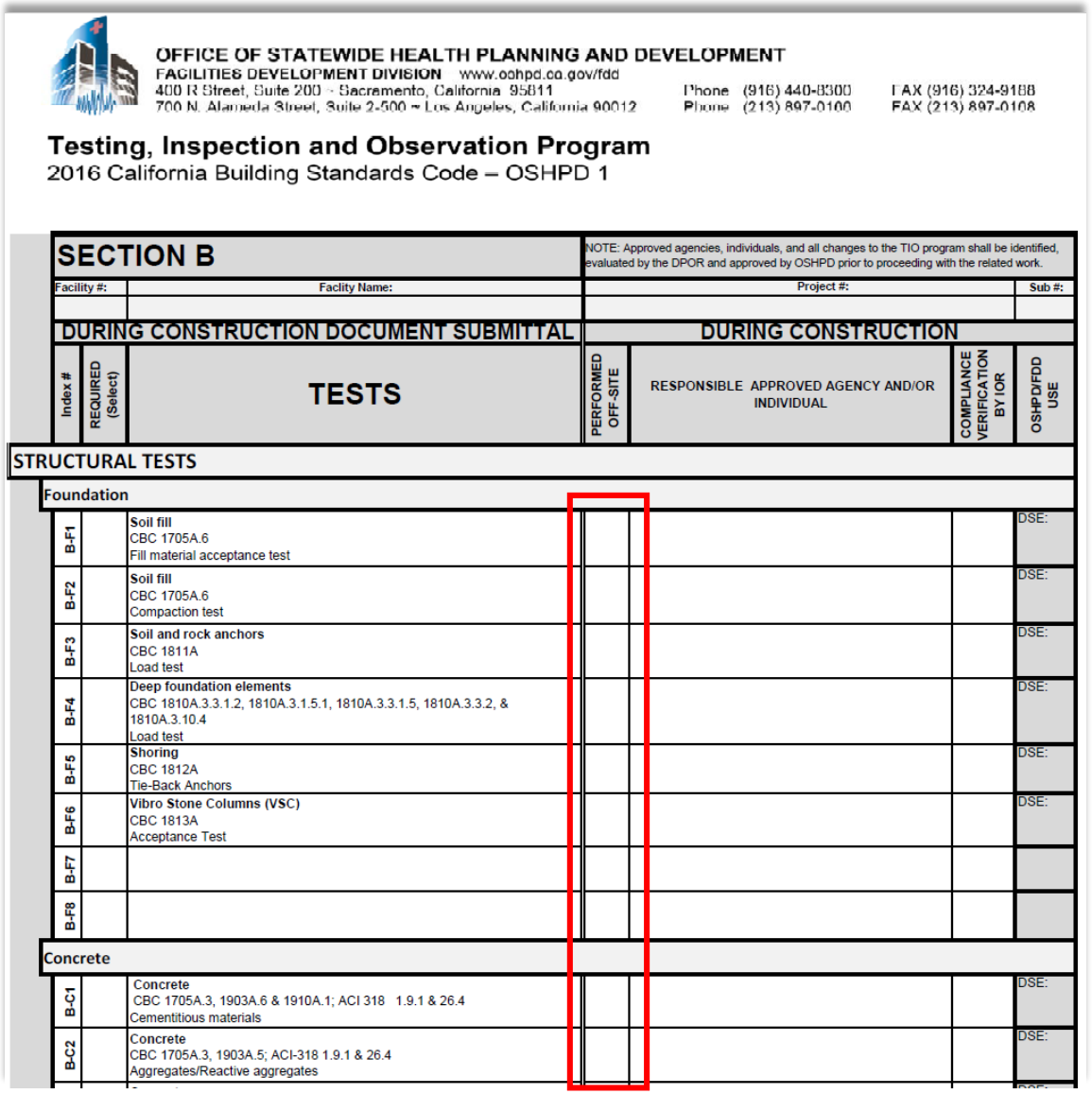
Ref. No.	REQUIRED CONSTRUCTION OBSERVATION (See "PERSONAL KNOWLEDGE" as defined in CAC Section 7-151)	VERIFIED COMPLIANCE REPORT REQUIRED AS INDICATED (OSH-FD-123)								FOR OFFICE USE ONLY
	MILESTONES	GEOR	AOR	SEOR	MEOR	EEOR	CONT	SP INSP	IOR	OSHPD FDD
			X	X	X	X	X		X	

Designated by DPOR and reviewed for adequacy by OSHPD

DPOR indicates which design professionals must prepare a Verified Compliance Report

TESTING, INSPECTION AND OBSERVATION PROGRAM

- Purpose
- Prepared by Design Professional of Record
- Development
  - How to Use
  - TBDs
- Controlled by AOR or EOR
- Offsite Inspections
  - Manufacturing/Fabrication
- OSHPD 1R



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION www.oshpd.ca.gov/fdd
400 R Street, Suite 200 · Sacramento, California 95811 Phone (916) 440-8300 FAX (916) 324-9188
700 N. Alameda Street, Suite 2-500 · Los Angeles, California 90012 Phone (213) 897-0100 FAX (213) 897-0108

Testing, Inspection and Observation Program
2016 California Building Standards Code – OSHPD 1

SECTION B

NOTE: Approved agencies, individuals, and all changes to the TIO program shall be identified, evaluated by the DPOR and approved by OSHPD prior to proceeding with the related work.

Facility #:	Facility Name:	Project #:	Sub #:

DURING CONSTRUCTION DOCUMENT SUBMITTAL			DURING CONSTRUCTION			
Index #	REQUIRED (Select)	TESTS	PERFORMED OFF-SITE	RESPONSIBLE APPROVED AGENCY AND/OR INDIVIDUAL	COMPLIANCE VERIFICATION BY IOR	OSHPD/FDD USE
STRUCTURAL TESTS						
Foundation						
B-F1		**Soil fill** CBC 1705A.6 Fill material acceptance test				DSE:
B-F2		**Soil fill** CBC 1705A.6 Compaction test				DSE:
B-F3		**Soil and rock anchors** CBC 1811A Load test				DSE:
B-F4		**Deep foundation elements** CBC 1810A.3.3.1.2, 1810A.3.1.5.1, 1810A.3.3.1.5, 1810A.3.3.2, & 1810A.3.10.4 Load test				DSE:
B-F5		**Shoring** CBC 1812A Tie-Back Anchors				DSE:
B-F6		**Vibro Stone Columns (VSC)** CBC 1813A Acceptance Test				DSE:
B-F7						
B-F8						
Concrete						
B-C1		**Concrete** CBC 1705A.3, 1903A.6 & 1910A.1; ACI 318 1.9.1 & 26.4 Cementitious materials				DSE:
B-C2		**Concrete** CBC 1705A.3, 1903A.5; ACI-318 1.9.1 & 26.4 Aggregates/Reactive aggregates				DSE:

START OF CONSTRUCTION

- **Timeline for Start of Construction**
  - Submit Building Permit Application
    - Update Construction Cost Estimate
    - IOR Application
      - IOR Work Load
    - Workman's Comp Insurance
  - Notice of Start of Construction (NOSC)
    - Update Construction Cost Estimate
  - Pre-Construction Meeting

START OF CONSTRUCTION

- Notice Of Start of Construction **CAC 7-137**
  - As soon as a contract has been awarded, the governing board or authority of the health facility shall provide to the Office, on a form provided by the Office, the following:

    1. Name and address of the contractor
    2. Contract price
    3. Date on which contract was awarded
    4. Date of construction start

CONSTRUCTION PERMIT SET

- Permit Set on Site During Construction
  - Paper vs. Electronic plans
- Paper vs. Electronic Code Books
- Electronic Review for ACDs

SUSPENSION OF CONSTRUCTION

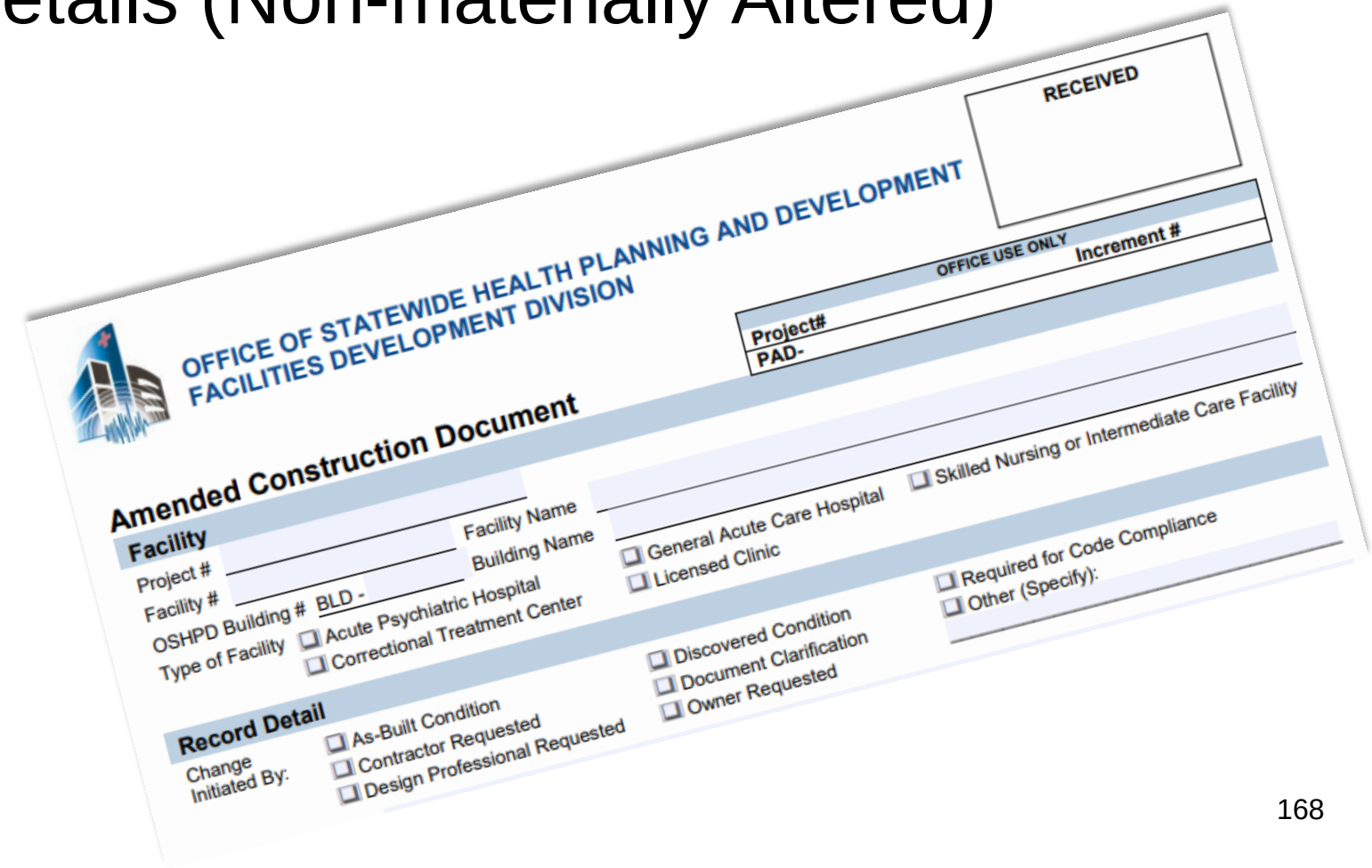
Notice of Suspension of Construction: CAC 7-139

- **(a) When construction is suspended for more than two weeks, the governing board or authority of the hospital shall notify the Office in writing.**

- **(b) If the work of construction is suspended or abandoned for any reason for a period of one year following its commencement, the Office's approval shall become void.**

REVIEWS DURING CONSTRUCTION

- Amended Construction Documents
- Using Preapproved Details (Non-materially Altered)
- Deferred Approvals
- ASIs
  - Not Submittals
  - Not Shop Drawings


OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

RECEIVED

OFFICE USE ONLY
Project#
PAD-
Increment #

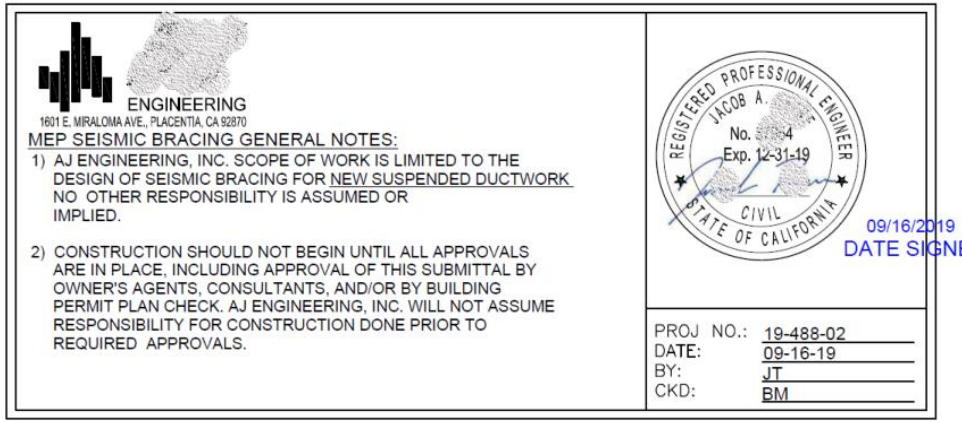
Amended Construction Document

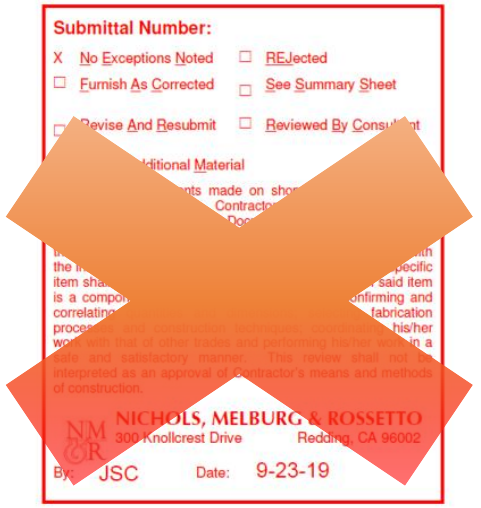
Facility
Project #
Facility #
OSHPD Building # BLD -
Facility Name
Building Name
Type of Facility
❑ Acute Psychiatric Hospital
❑ Correctional Treatment Center
❑ General Acute Care Hospital
❑ Licensed Clinic
❑ Skilled Nursing or Intermediate Care Facility

Record Detail
Change Initiated By:
❑ As-Built Condition
❑ Contractor Requested
❑ Design Professional Requested
❑ Discovered Condition
❑ Document Clarification
❑ Owner Requested
❑ Required for Code Compliance
❑ Other (Specify):

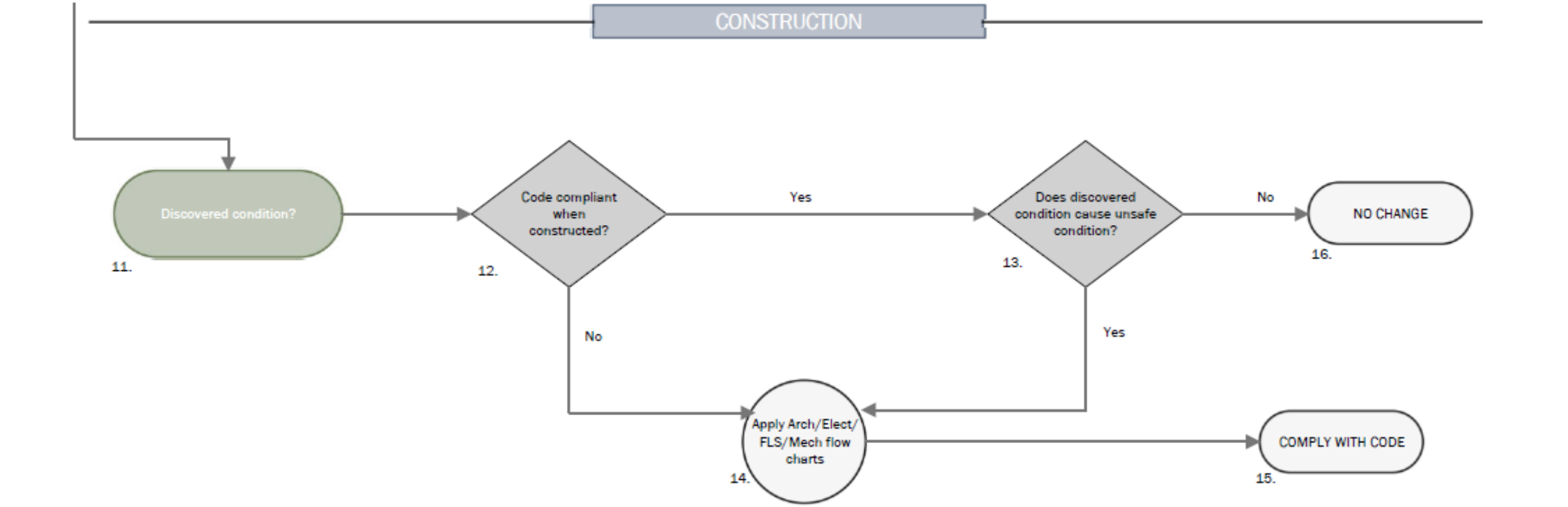
STAMPING AND SIGNING

- Amended Construction Documents
- Deferred Approvals
- Document Retention
  - OSHPD Archives:
    - Approved Plans and ACDs
    - Approved Specifications
    - Approved TIO
  - Owner Archives:
    - Everything Project Related





OVERVIEW OF FLOW CHART – CONSTRUCTION PHASE



CONSTRUCTION APPLICABLE PIN's & CAN's

DEFINE SCOPE

- Discovered Condition
- Code Compliant when Constructed
- Required for New Use

APPLY FLOW CHARTS

- A/M/E/P/FLSO Flow Charts
- Accessibility
- Temporary Utilities

PROCESSES

- ACD/RAD Processes
- Non-Materially Alter
- *e*CPR & AMC

INSPECTION

CERTIFIED HOSPITAL INSPECTOR

IOR Roles

1. Hired by Owner
2. Directed by DPOR
3. Reports to OSHPD

INSPECTOR'S KNOWLEDGE

PRINCIPAL DUTIES

Code Required Duties: 7-145. Continuous inspection of the work.

- The inspector shall have **personal knowledge**, obtained by continuous inspection, of **all parts of the work** of construction **in all stages of its progress** to ensure that the work is in accordance with the approved construction documents.
- The **inspector shall work under the direction of the architect or engineer in responsible charge**. All **inconsistencies or seeming errors** in the approved construction documents **shall be reported promptly** to the architect or engineer in responsible charge for interpretation and instructions.
- The inspector shall **maintain a file of approved construction documents** on the job at all times including all reports of tests and inspections required by the construction documents and **shall immediately return any unapproved documents** to the architect or engineer in responsible charge for proper action.

PRINCIPAL DUTIES

Code Required Duties: 7-145. Continued

- The inspector(s) of record shall maintain field records of construction progress for each day or any portion of a day that they are present at the project site location. The field record shall state the time of arrival, time of departure, a summary of work in progress and noted deficiencies in the construction or deviations from the approved construction documents. This field record shall document the date, time and method of correction for any noted deficiencies or deviations.
- The inspector shall notify the contractor, in writing, of any deviations from the approved construction documents or new construction **not in compliance** with the California Building Standards Code, which have not been immediately corrected by the contractor. Copies of such notice shall be forwarded immediately to the architect or engineer in responsible charge, owner and to the Office.

COMPLIANT VS. NON-COMPLIANT EXISTING CONDITIONS

- **403.1** Except as provided by Section 401.2 or this section, **alterations** to any building or structure shall comply with the requirements of the *California Building Code* or *California Residential Code*, as applicable, for **new** construction.

- Alterations **shall be such that the existing building or structure is no less conforming to the provisions of the *California Building Code* or *California Residential Code,* as applicable, than the existing building or structure was prior to the alteration.**

- **403.1.1 Replacement, retention and extension of original materials.** … **shall permit the replacement**, retention and extension of original materials, and the **use of original methods of construction**, for any building or accessory structure, **provided such building or structure complied with the building code provisions in effect at the time of original construction** and the building or accessory structure **does not become or continue to be a substandard building.**

COMPLIANT VS. NON-COMPLIANT EXISTING CONDITIONS

What are "Non-compliant" Existing Conditions?

Who Makes That Determination? The IOR, CO or the Design Professional?

How Far Outside Of The Remodel's "Scope Of Work" Will The Non-compliant Condition Need To Be Corrected?

COMPLIANT VS. NON-COMPLIANT EXISTING CONDITIONS

- **Where 20% or less of the affected existing construction such as ceilings, walls, ducts, but independent of finishes, is removed to access equipment and services for anchorage/bracing may be reinstalled as it pre-existed prior to the NPC work, as long as it was in compliance with the code at the time it was installed/constructed – 2019 CAC 1.5.2**

DUCTWORK INSTALLATION IS INTENDED TO OCCUR THROUGH THE EXISTING CEILING GRID. WITH NO MORE THAN 20% OF THE EXISTING SUSPENDED GRID TO BE REMOVED DURING THE COURSE OF WORK.

CONTRACTOR SHALL REPLACE ANY DAMAGED TILES WITH NEW, AND REPAIR CEILING GRID PER DETAILS PROVIDED IF DAMAGED DURING THE COURSE OF WORK.

NPC Upgrades

- **Investigation**
  - **Consider physically holding braces in proposed locations to confirm field conditions can allow preapproved detail angles to be achieved**
- **Difficult to install braces around existing above ceiling utilities**
  - **Seismic details need to include some level of flexibility to accommodate existing conditions**
  - **May have to relocate utilities or take braces through walls**
  - **Difficulty comes from details with fixed angles or required dimensions for kickers to braces.**

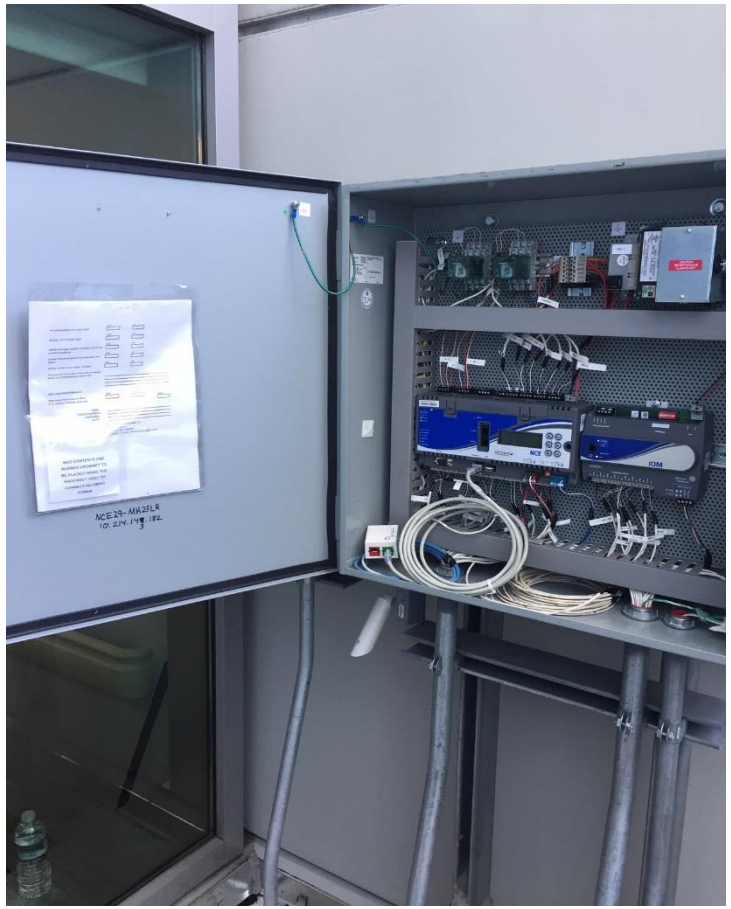
SIX WEEK DELAY

Hospital Remodel to provide a new Compounding Pharmacy

Air Handling Units and Exhaust Fans

GOT SEISMIC CERTIFICATION?

Controllers and switches for a Compounding Pharmacy's HVAC system and Exhaust Fans



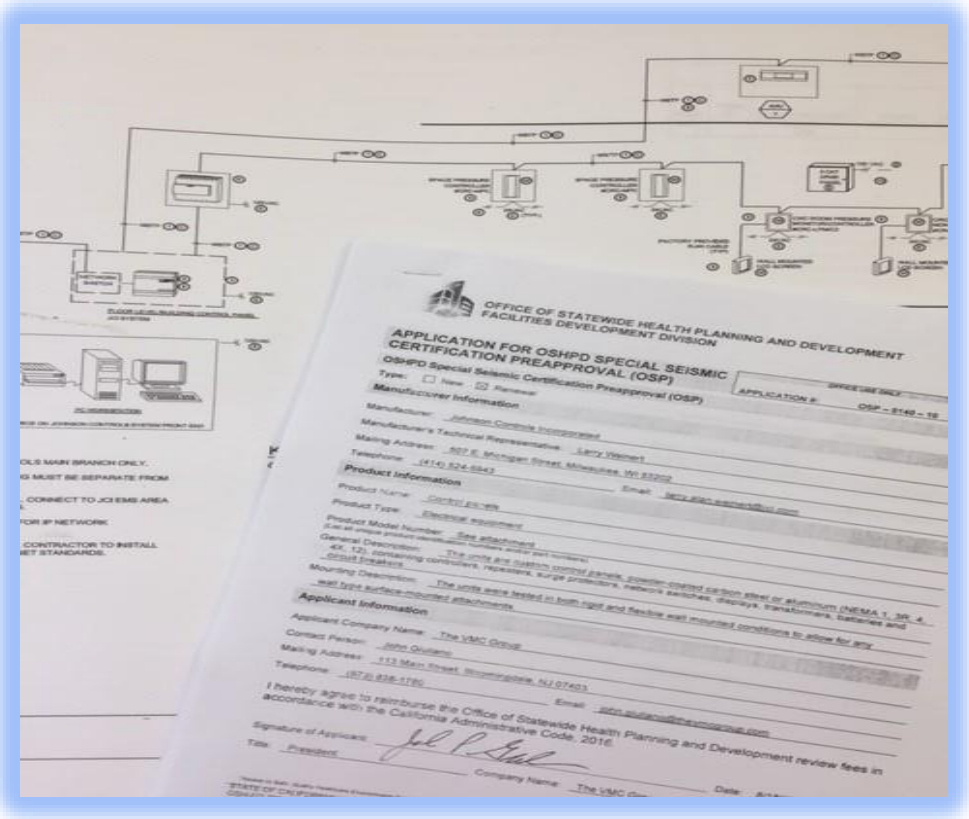
This controller unit did not come with the Air Handler or Fan units!

It was installed separately to control the system. Furthermore, it was not identified with an OSP number on the approved documents.

The registered design professional shall specify on the construction documents the requirements for special seismic certification for equipment and components in accordance with CBC Section 1705.13.3 or 1705A.13.3

DON'T OVERLOOK THE SMALL STUFF!

During the Installation of the controller the Inspector or Record asked the question, where is the seismic certification sticker, and noticed the OSP was not identified on the drawings.

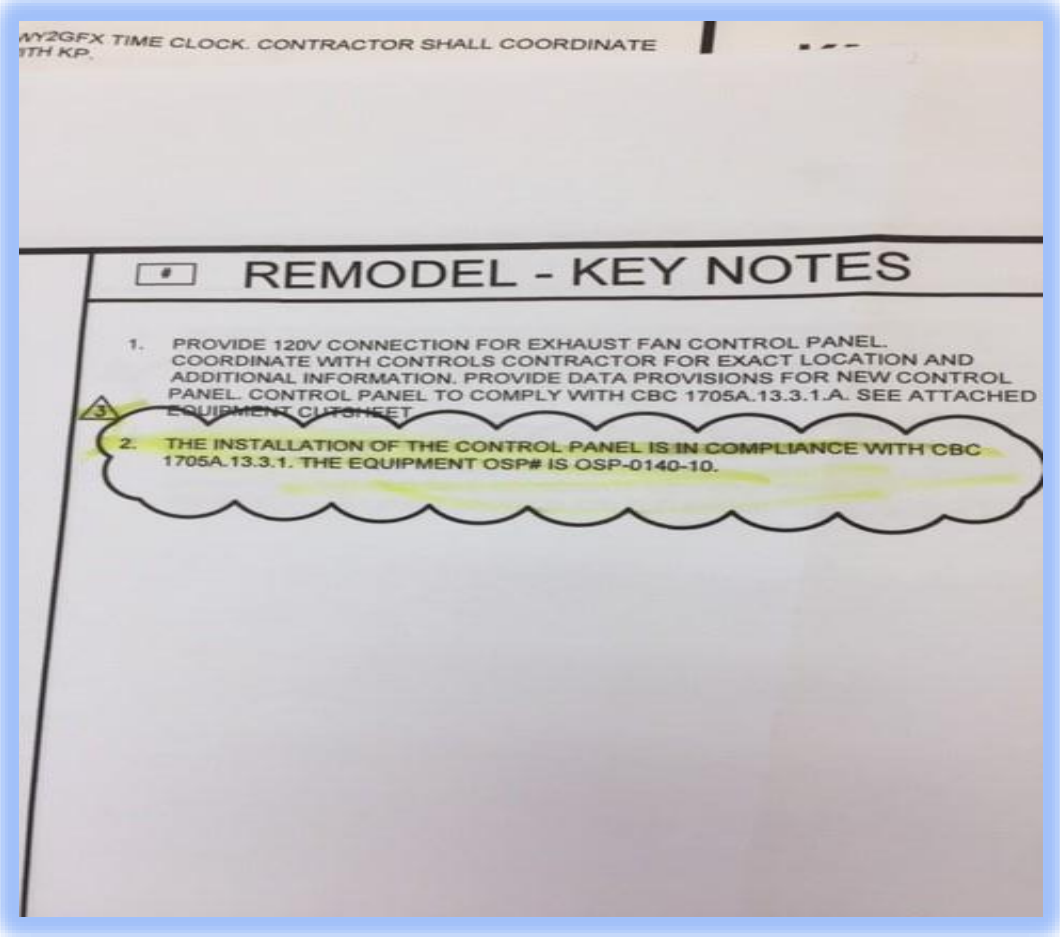


INSPECTION CERTIFICATE. An identification applied on a product by an approved agency containing the name of the manufacturer, the function and performance characteristics, and the name and identification of an approved agency that indicates that the product or material has been inspected and evaluated by an approved agency (see Section 1703.5 and "Label," "Manufacturer's designation" and "Mark").

SEVERAL WEEKS LATER

After days of investigation with back and forth discussions between the Design Team, Manufacturer and the Contractor; an ACD was presented to the OSHPD Field Staff which was reviewed and approved.

Don’t forget your sticker!



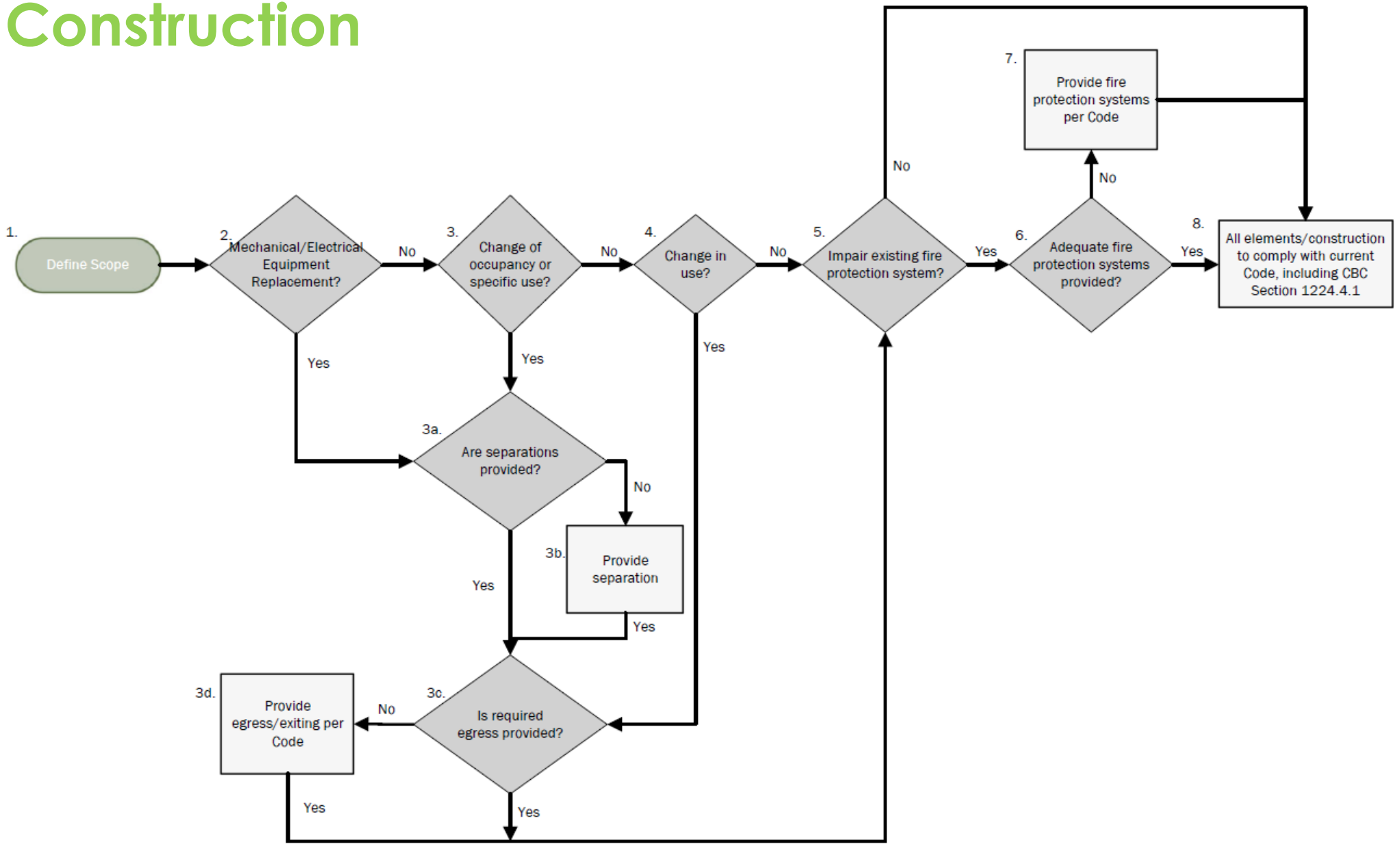
TAKE AWAYS

- **Get Design Professional involved immediately!**
- **Do not substitute products that are sub-components of OSPs**
- **Verify submittals with Approved Documents prior to ordering**

Fire and Life Safety
Construction

Fire and Life Safety

Construction



Mechanical/Electrical Equipment Replacement (#2)
Examples; boilers, chillers air handlers, etc

CAN 2-108
Temporary Systems, Utilities and Equipment

If **yes**, there are M & E replacement(s), then= **Provide Separations** as required per Chapters 3, 5, 508, 509, etc (#3a, #3b)

Mechanical/Electrical Equipment Replacement

Placement

- Exits
- Property lines
- Adjacent exposures
- Etc

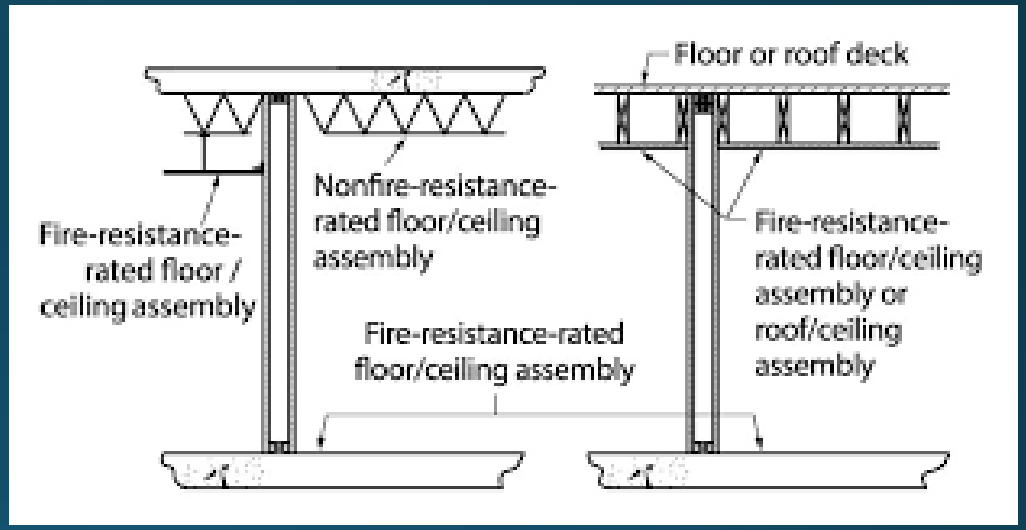
Change in function or Change of use/occupancy

(#3)

- Change in Function-A change in activity or service provided within the project limits that does not change the use, specific use or occupancy.
- Change of Occupancy/Use- Change of an occupancy or use defined in CBC 2, 3, 5 & 3408A

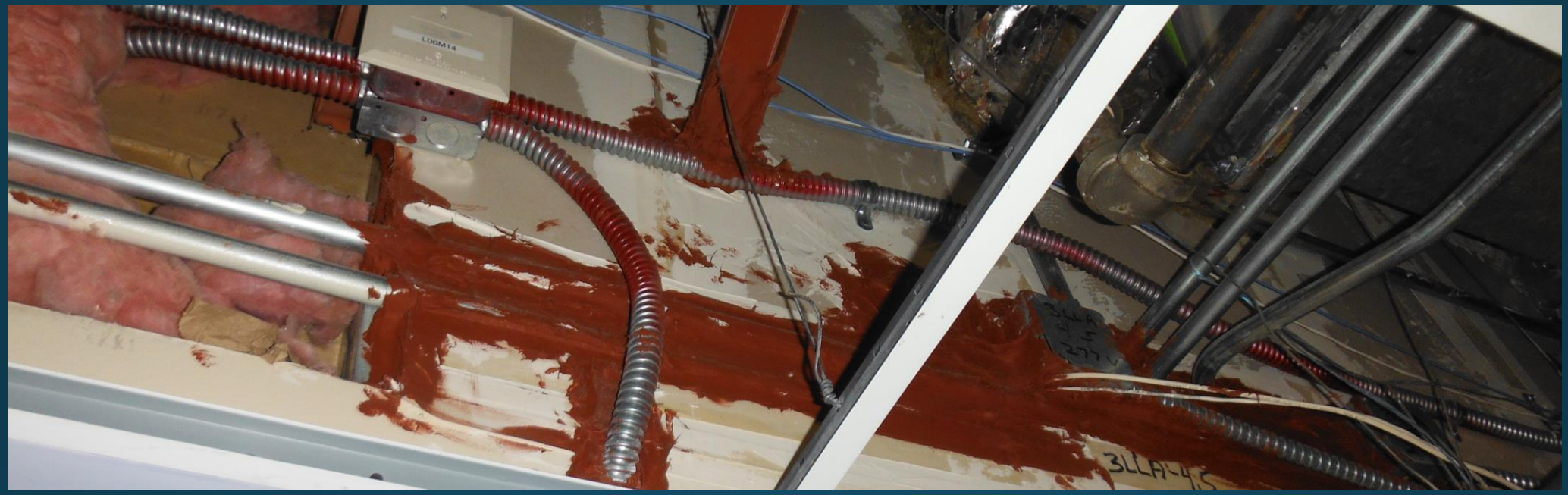
Provide separation per CBC 3,5, 508, 509, etc

(#3, #3a, #3b)

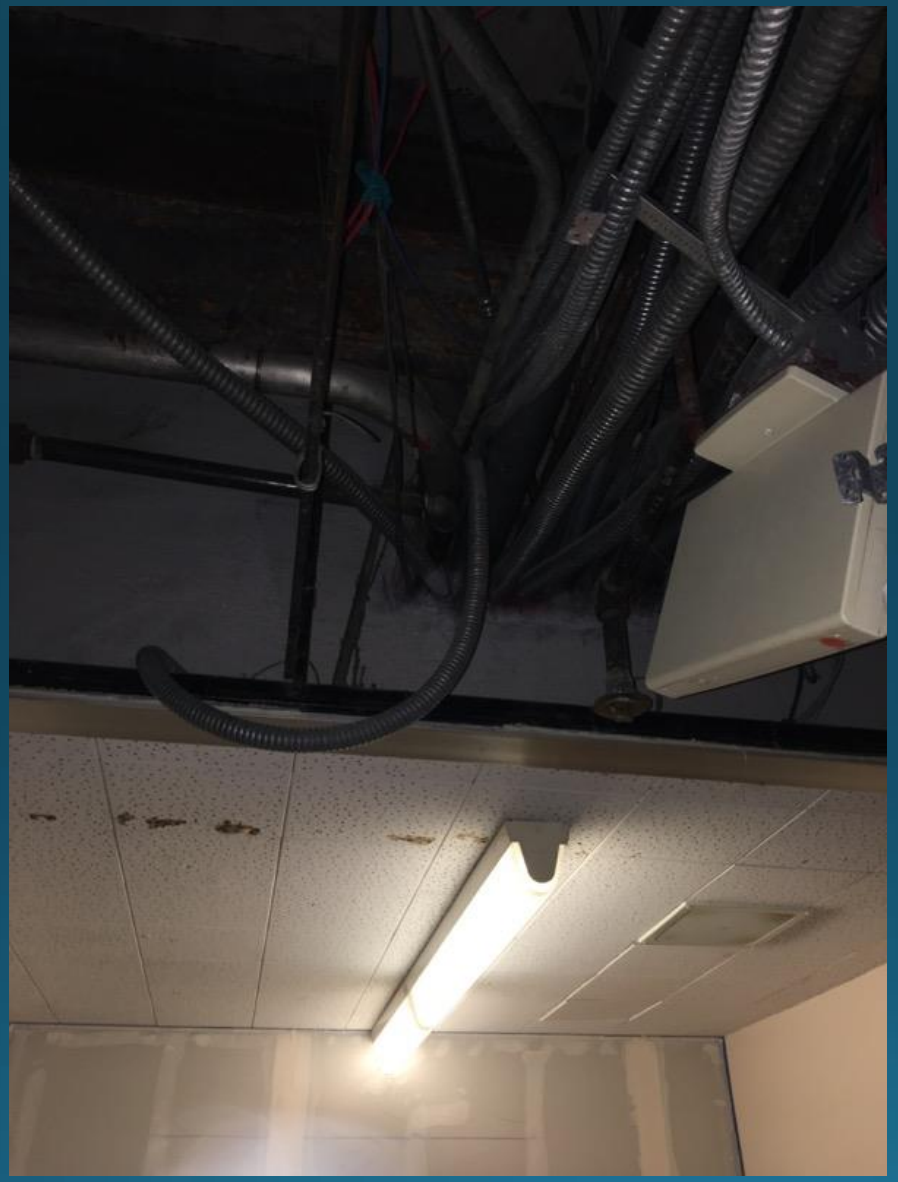

Floor or roof deck
Nonfire-resistance-rated floor/ceiling assembly
Fire-resistance-rated floor / ceiling assembly
Fire-resistance-rated floor/ceiling assembly
Fire-resistance-rated floor/ceiling assembly or roof/ceiling assembly

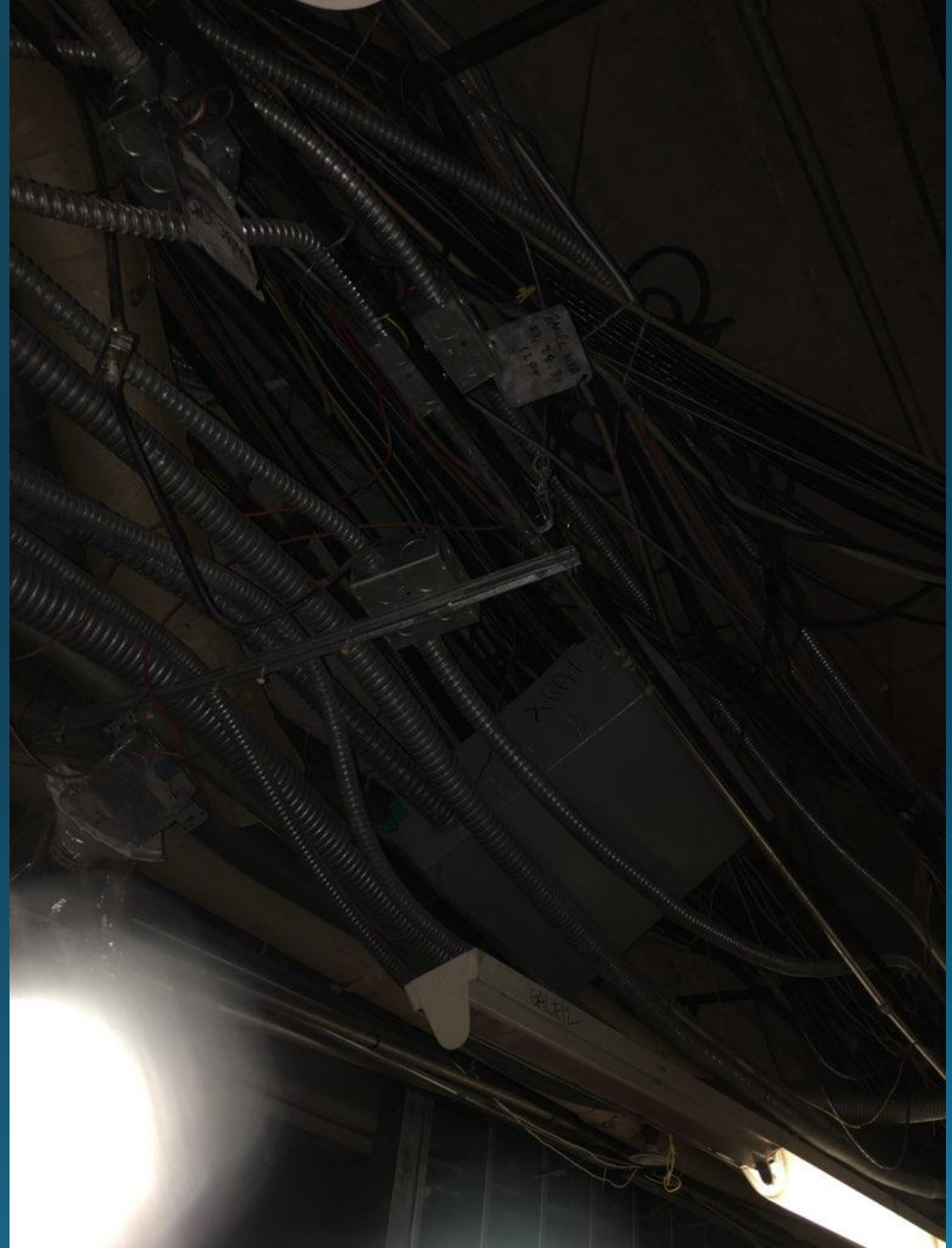
Change in Occupancy, Use, Occupant Load and Exiting

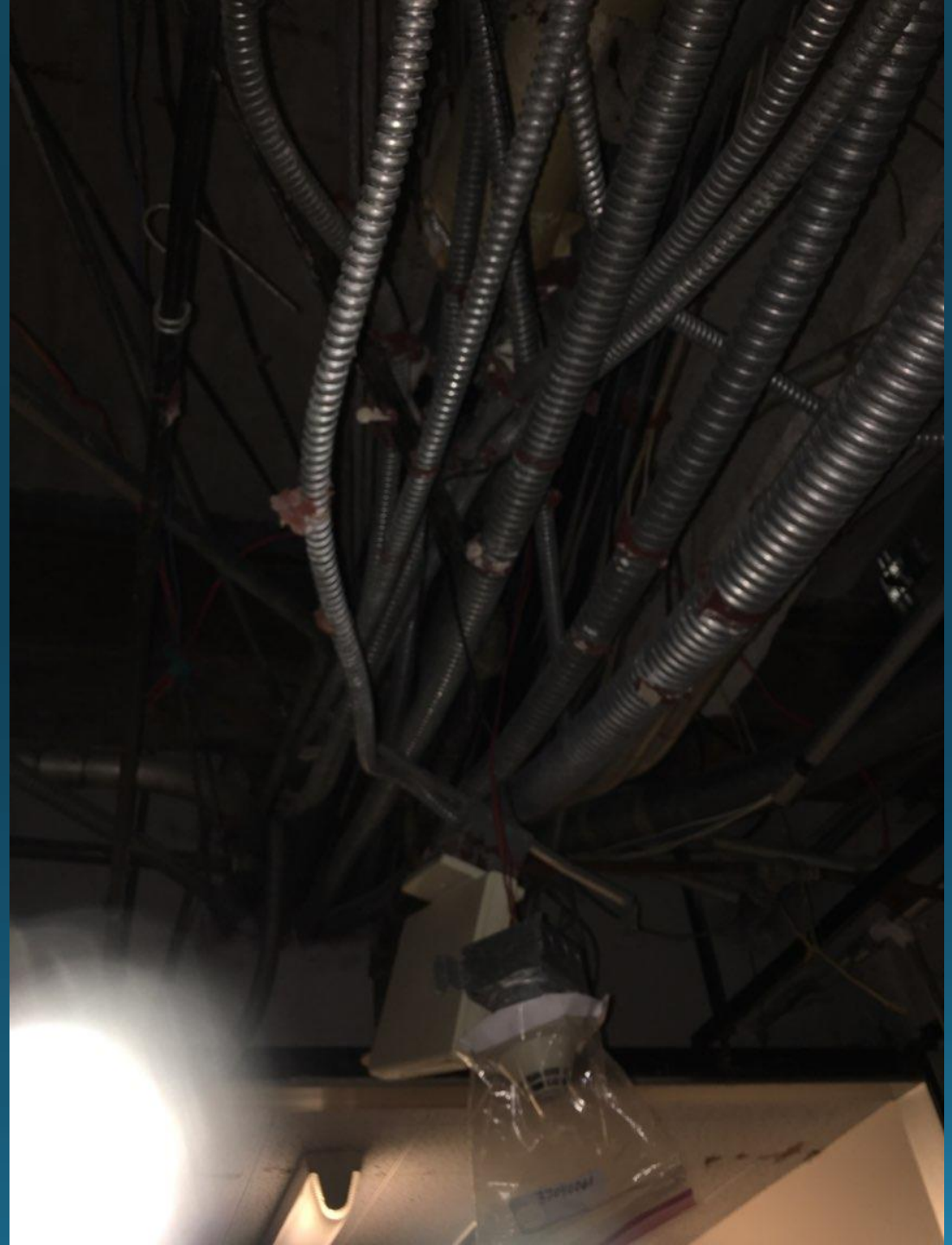
(Have paths of egress, distances, etc changed due to change in occupancy?)

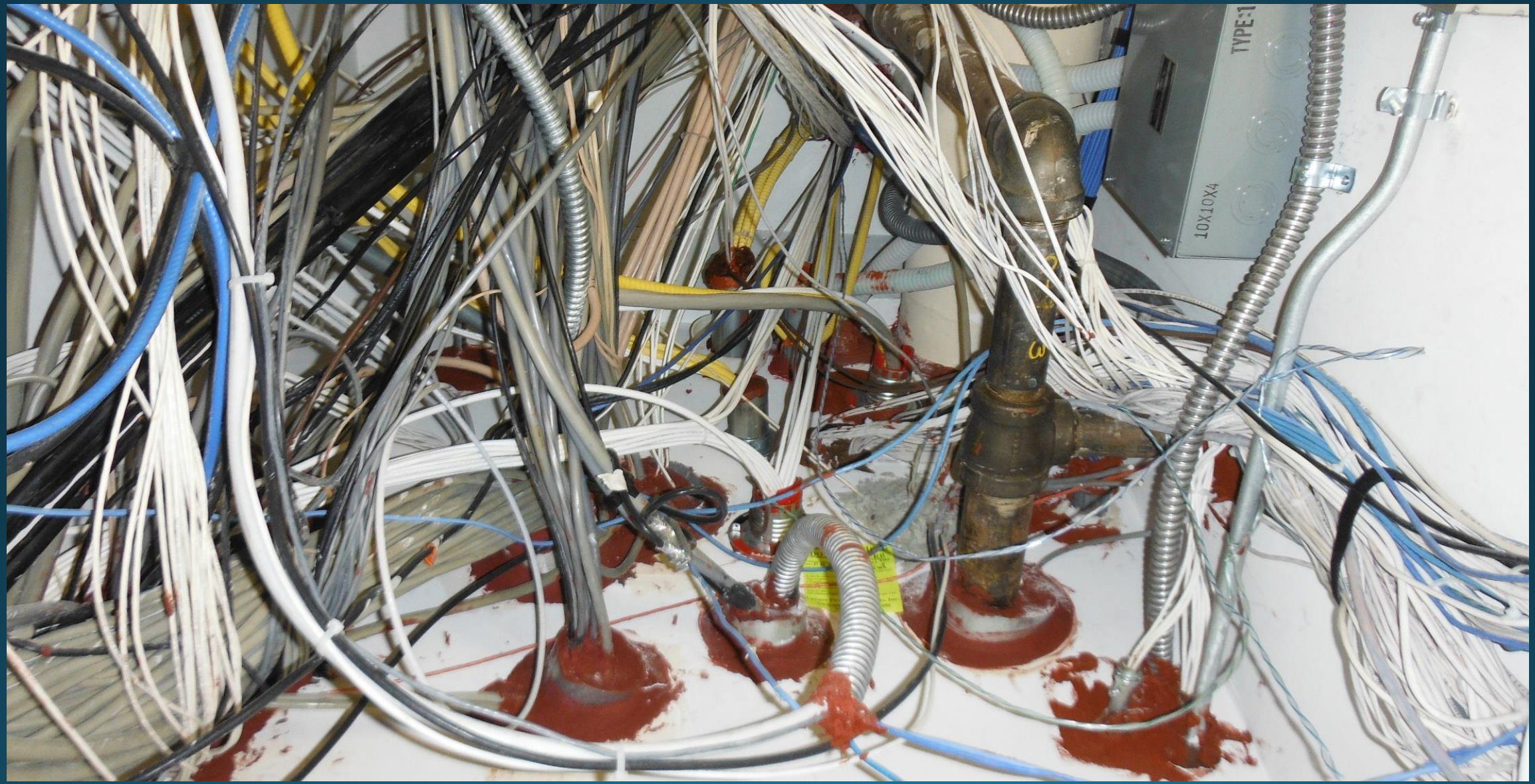


Protect or pretend to not notice it? This is the question…





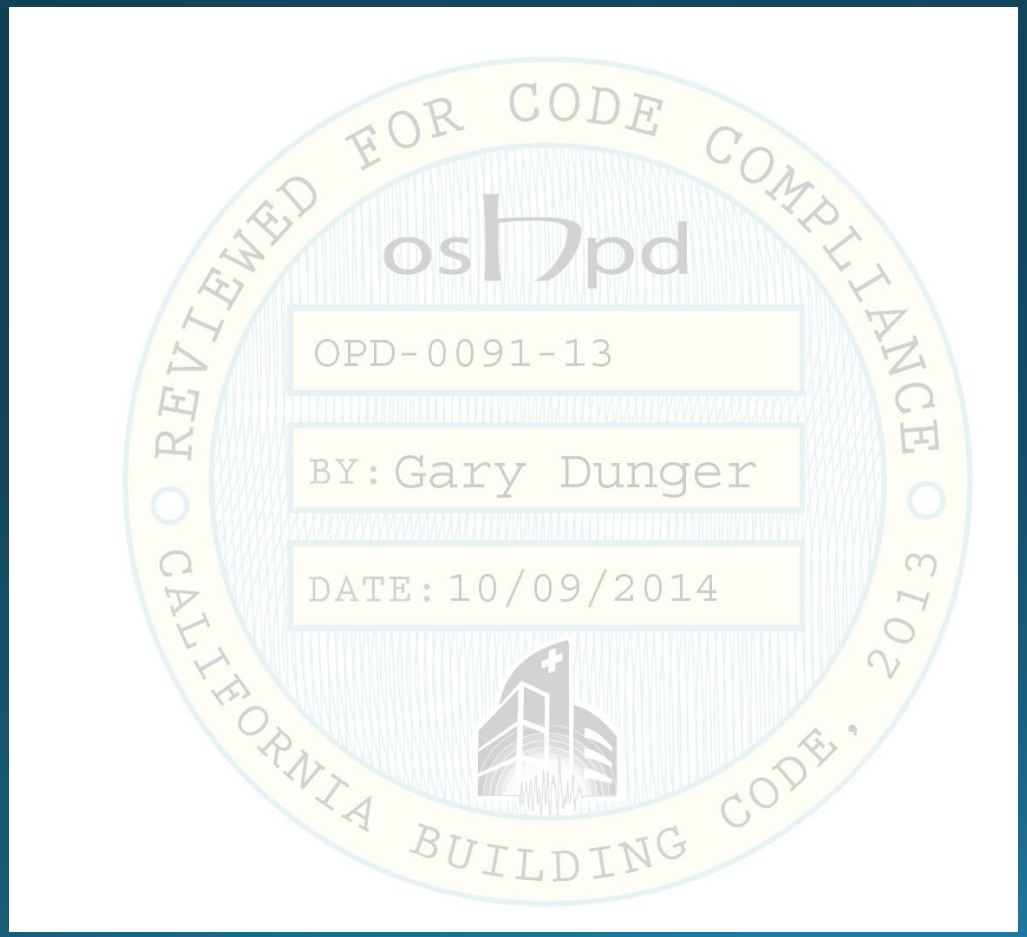


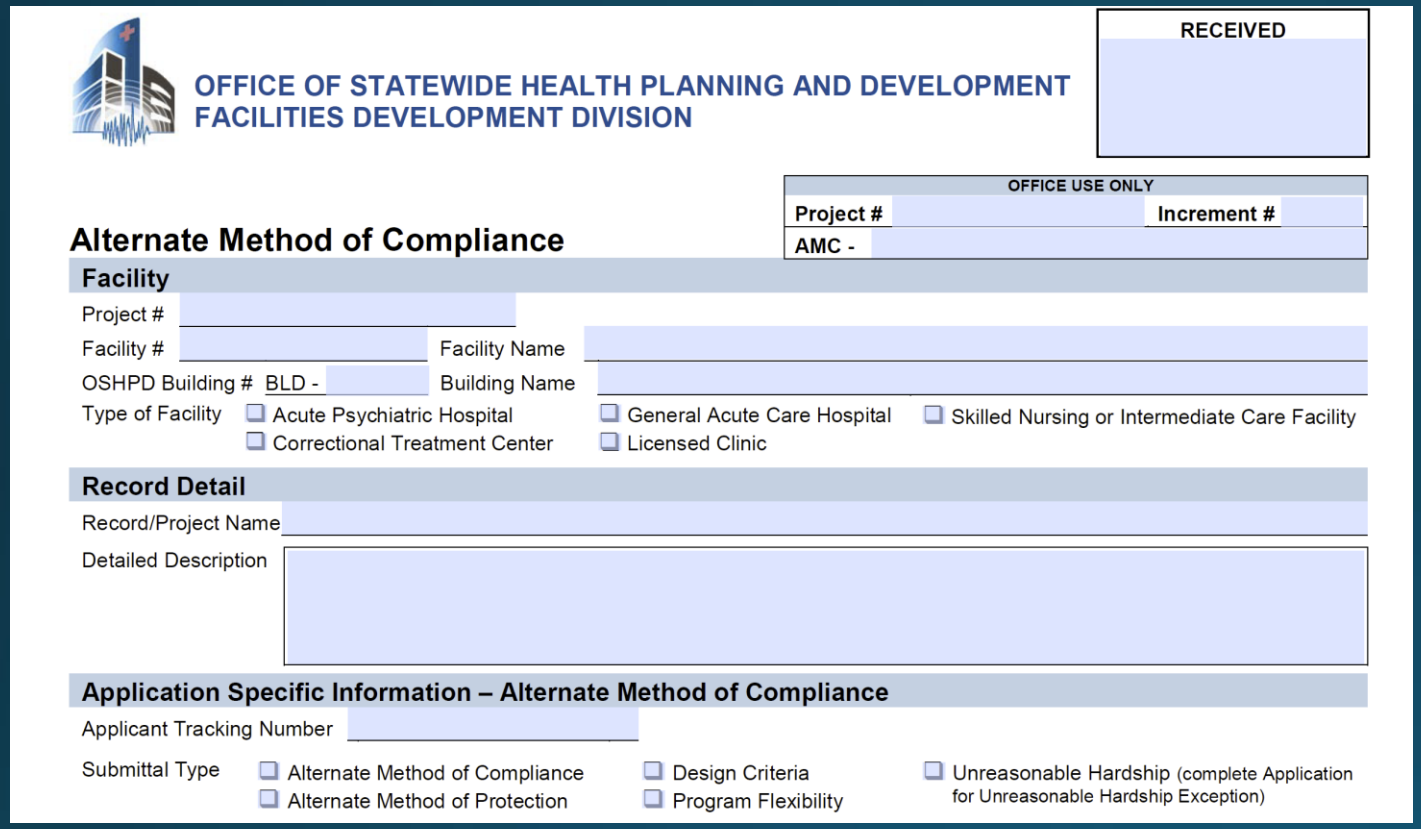

TYPE:1
10X10X4


TOP
VENT

OSHPD Pre-Approved Details

https://oshpd.ca.gov/construction-finance/preapproval-programs/





OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

RECEIVED

OFFICE USE ONLY
Project # Increment #
AMC -

Alternate Method of Compliance

Facility

Project #
Facility # Facility Name
OSHPD Building # BLD - Building Name
Type of Facility ☐ Acute Psychiatric Hospital ☐ General Acute Care Hospital ☐ Skilled Nursing or Intermediate Care Facility
☐ Correctional Treatment Center ☐ Licensed Clinic

Record Detail

Record/Project Name
Detailed Description

Application Specific Information – Alternate Method of Compliance

Applicant Tracking Number
Submittal Type ☐ Alternate Method of Compliance ☐ Design Criteria ☐ Unreasonable Hardship (complete Application for Unreasonable Hardship Exception)
☐ Alternate Method of Protection ☐ Program Flexibility

Alternate Method of Compliance AMC

Temporary Construction Barriers

CAN 9-3301
Fire Safety During Construction and Demolition

- Temporary rating same as permanent partition
- Exiting reviewed and approved by local fire AHJ AND OSHPD, **PRIOR** to any demolition or construction

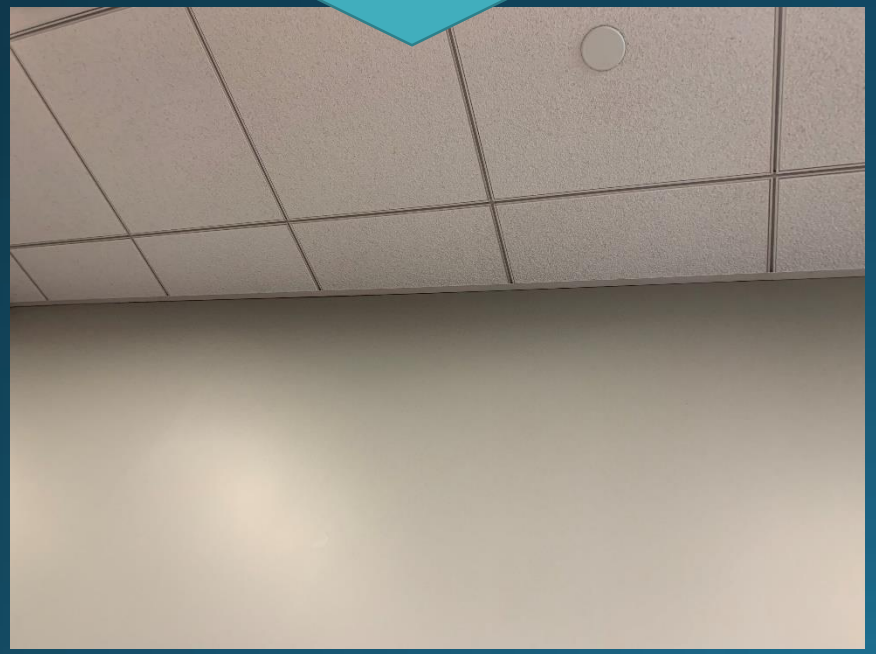
Temporary Construction Barriers

CAN 9-3301

Fire Safety During Construction and Demolition

- Temporary rating same as permanent partition

- **Fire Partition**



- **Smoke Barrier**
- **Fire Barrier**
- **Horizontal Exit**

- Required means of egress shall be maintained during construction and demolition, remodeling or alterations and additions to any building.
- **Code compliant means of egress shall be maintained at all times.**
- Local Fire AHJ and OSHPD shall approve all temporary exiting
- SPC/NPC ratings and paths of egress travel
- **CFC 3311 (#3c, #3d)**

Temporary Equipment

- Code Compliant at all times/phases
- Boilers, Chillers, air handlers, etc
- CAN 2-108

Fire Protection Systems (#5, #6)

CFC 33

PIN 14

NFPA 241

Fire Protection Systems (#5, #6)

- Temporary Fire Pumps
- Fire Alarms
- Sprinklers
- Smoke Control, etc.
- Fire Watch

Fire Watch PIN 14

Fire watch is generally defined as, “The assignment of a qualified person or persons having the sole responsibility for the continuous patrol of a building or premises for the purpose of detecting fires and transmitting an immediate alarm to the building occupants and fire department”.

Where a required fire protection system is placed out-of-service or rendered inoperable, OSHPD and the fire department shall be notified immediately and an approved fire watch shall be provided for all occupants left unprotected by the shutdown until the fire protection system has been returned to service and termination of the fire watch is approved by OSHPD.

Fire Protection Systems

Existing fire protection systems impaired?

NO=All elements/construction to comply with current code, including CBC 1224.4.1 (#5)

YES=

Determine if adequate fire protection systems are provided (#6)

NO=Provide fire protection systems per code (#7)

OR

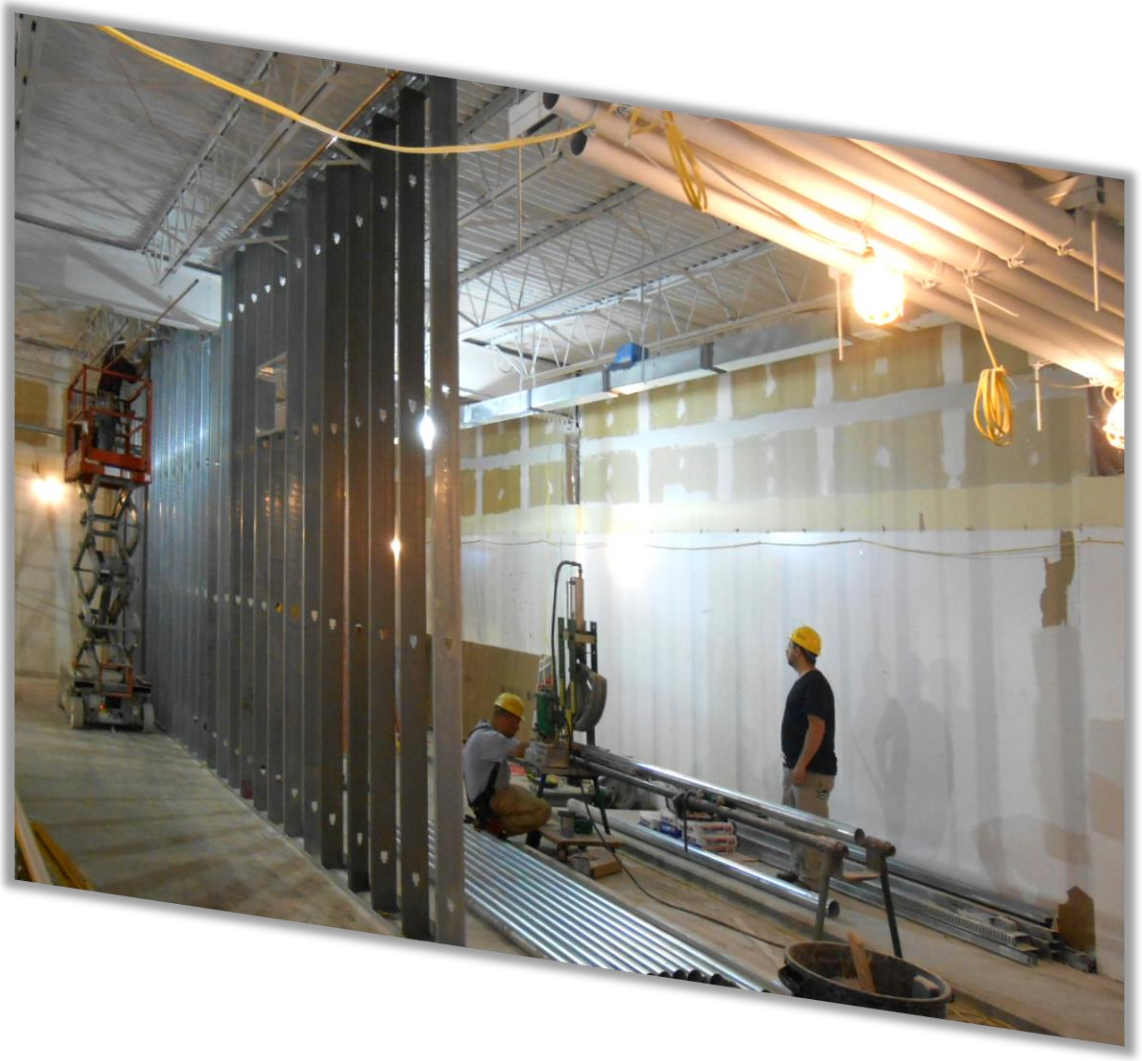
YES=All elements/construction to comply with current code, including CBC 1224.4.1 (#5)

Final Step
All elements/construction to comply with current code, including CBC 1224.4.1 (#8)


TAKE A BREAK!

CONSTRUCTION IN AN OPERATING FACILITY

- Infection Control
- Med Gas
- Air Balance
- Construction Access
- Debris
- Temp Eq. and Utilities
- Egress
- Maintaining Operations
- Method of Procedures (MoPs) with CDPH



CONSTRUCTION IN AN OPERATING FACILITY

- **Methods of Procedures (MoPs)**
  - OSHPD Does Not Approve (may review if construction is involved – show on documents)
  - Used for Interruption of Services During Construction
  - Patient Services to Remain in Operation During Construction
  - CDPH may Need to Review
  - Local Jurisdictional Requirements
    - On-site Trailer/Storage Placement
    - Recycling Construction Debris
    - Interim Life Safety Measures

Note: Not to be confused with welding procedures, etc.

CONSTRUCTION IN AN OPERATING FACILITY

- **Unauthorized Work found during construction** (CAC 7-128)
  - "U" Project
  - T&M
  - May delay current project
  - May restrict future projects

Construction in an Operating Facility

➢ Minimum Code Compliance Exiting during construction

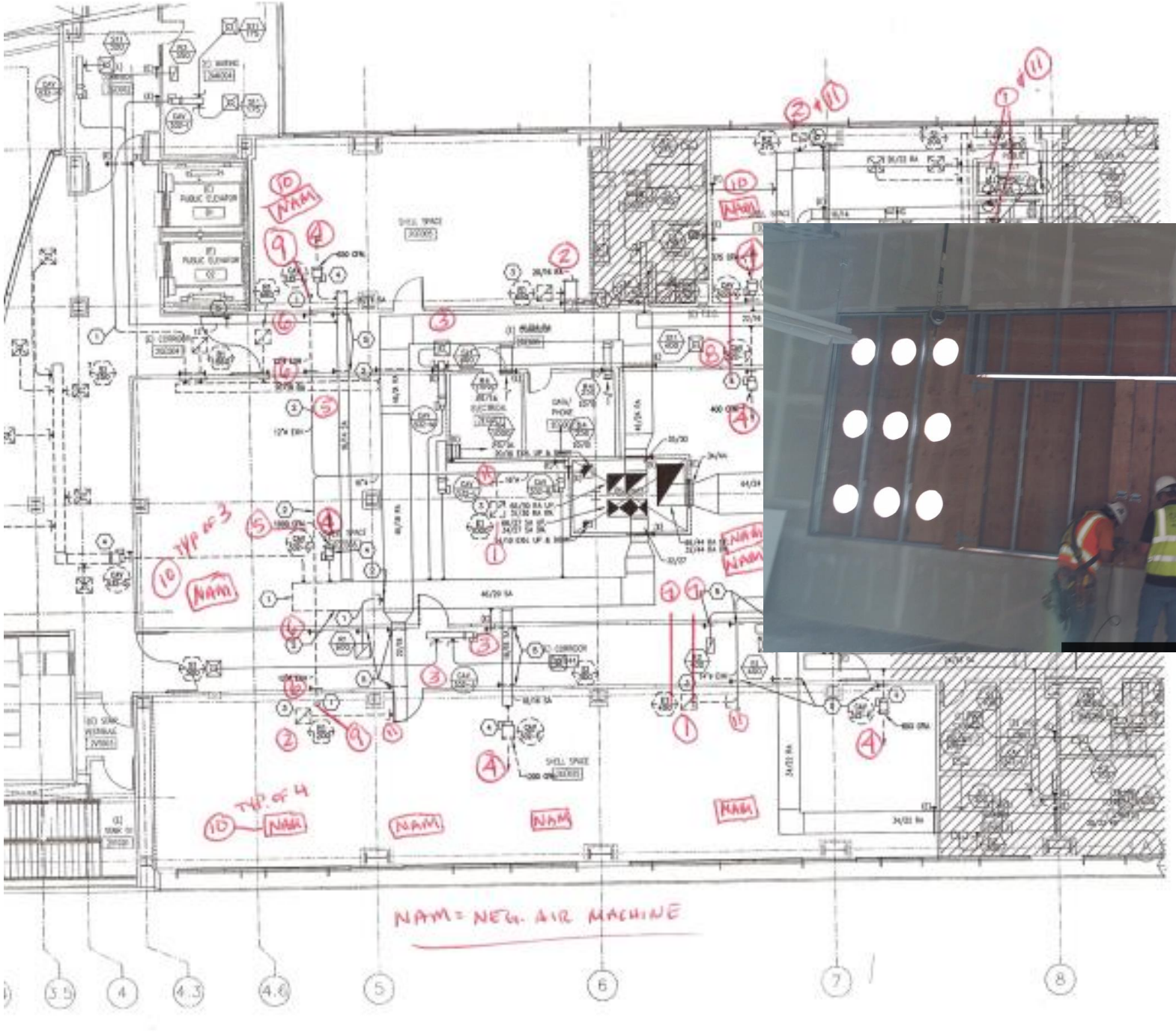
- 6’ Clear Corridor exiting to a 4’ ADA Sidewalk
- If exiting adjacent to a construction zone walk way must be protected for a length per Table 33016 of Chapter 33 in the CBC
- Patients must have access to a covered drop off-pick up location
- Exit routes must meet code required minimum light levels and maintain sprinkler coverage

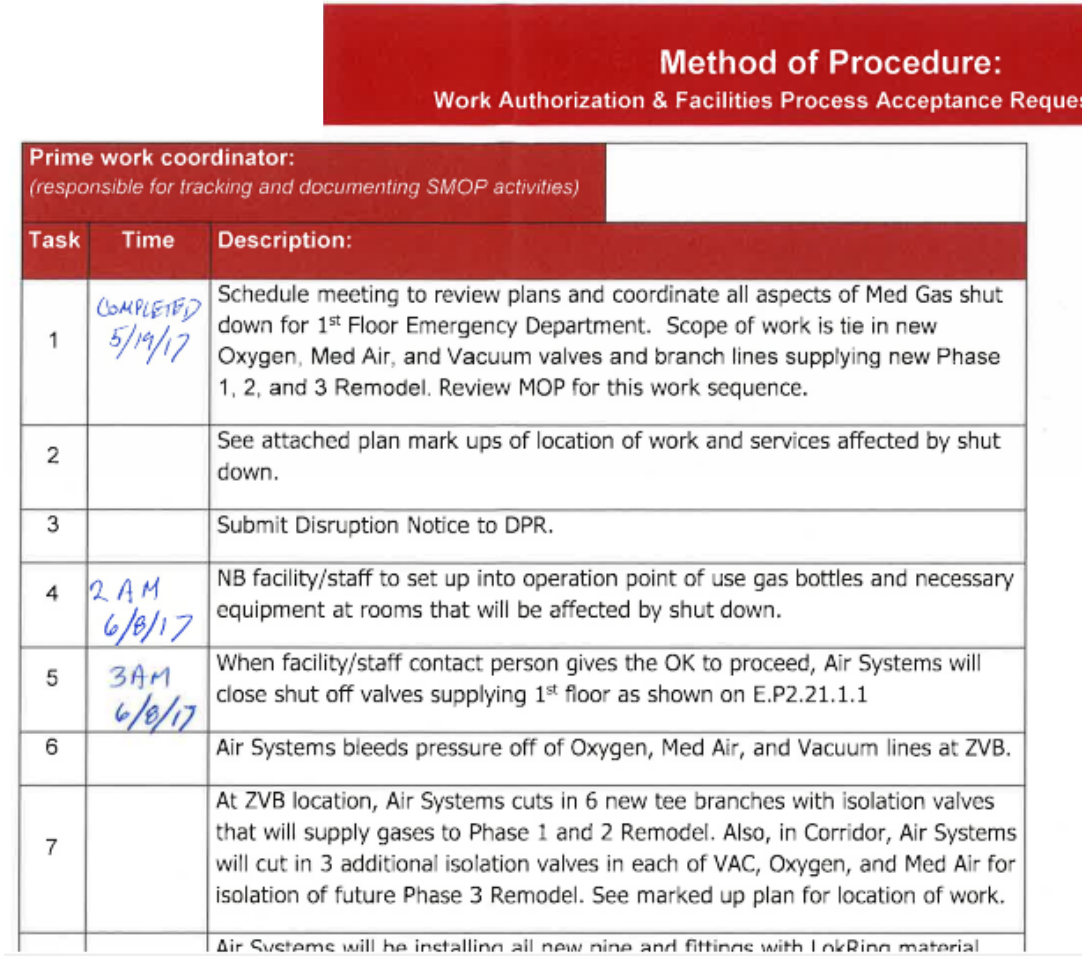
Access to Construction Areas

- Considerations
  - How are workers getting in and out of the space?
  - How are materials and debris getting in and out of the space?
  - Example
    - 2nd Floor Remodel above a kitchen
      - Negative Air
      - Materials
      - People
    - Scaffold Access to upper floors & patient protection

Negative Air Discharge

- After Prebalance HEPA filtered air machines need to be set up to create a negative air pressure relationship between the construction areas and patient areas before demo starts
- Discharge from the negative air machines needs to be discussed as part of the Disruption Notice Process.
  - Remove Doors/Windows so that air can be vented out
  - Case Example
    - TI Build on the second floor, 3 construction zones separated by public access corridors





Method of Procedure:
Work Authorization & Facilities Process Acceptance Reque

Prime work coordinator:
(responsible for tracking and documenting SMOP activities)

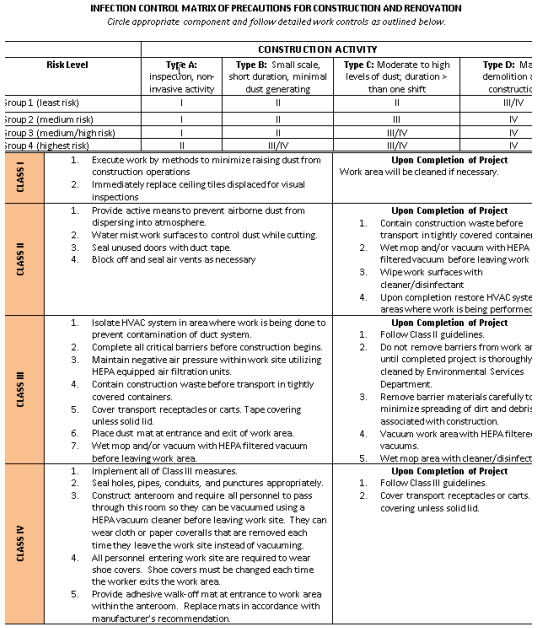
Task	Time	Description:
1	COMPLETED 5/19/17	Schedule meeting to review plans and coordinate all aspects of Med Gas shut down for 1st Floor Emergency Department. Scope of work is tie in new Oxygen, Med Air, and Vacuum valves and branch lines supplying new Phase 1, 2, and 3 Remodel. Review MOP for this work sequence.
2		See attached plan mark ups of location of work and services affected by shut down.
3		Submit Disruption Notice to DPR.
4	2 AM 6/8/17	NB facility/staff to set up into operation point of use gas bottles and necessary equipment at rooms that will be affected by shut down.
5	3AM 6/8/17	When facility/staff contact person gives the OK to proceed, Air Systems will close shut off valves supplying 1st floor as shown on E.P2.21.1.1
6		Air Systems bleeds pressure off of Oxygen, Med Air, and Vacuum lines at ZVB.
7		At ZVB location, Air Systems cuts in 6 new tee branches with isolation valves that will supply gases to Phase 1 and 2 Remodel. Also, in Corridor, Air Systems will cut in 3 additional isolation valves in each of VAC, Oxygen, and Med Air for isolation of future Phase 3 Remodel. See marked up plan for location of work.
		Air Systems will be installing all new pipe and fittings with LokRing material

Shut Downs

- Note steps for the work, identify impacts, risk and “who does what.”
- Fire Watch
  - Teams need to talk about who does it and at what times
- Fire Alarm System in Bypass/Test
  - Who should put the system in test and let the notification company know?
  - Note Troubles on Master Fire Alarm panel
- Fire Protection System Drain Down
  - Who should drain the system down?

ILSM / ICRA / Phasing & MOPs

- **What is required for ICRA**
  - Coordinated between GC and authorized Facilities representatives to classify the type of construction and the sensitivity of the area
  - Post Disruption Notices (DN) & Methods of Procedures (MOP) in work space for reference
    - Review ILSM with IOR/CO/FLSO as necessary
    - Review ICRA with hospital infection control specialist.
    - Get Signatures!



INFECTION CONTROL MATRIX OF PRECAUTIONS FOR CONSTRUCTION AND RENOVATION

Circle appropriate component and follow detailed work controls as outlined below.

Risk Level	CONSTRUCTION ACTIVITY			
	Type A: inspection, non-invasive activity	**Type B:** Small scale, short duration, minimal dust generating	**Type C:** Moderate to high levels of dust; duration > than one shift	**Type D:** Ma demolition a construction
roup 1 (least risk)	I	II	II	III/IV
roup 2 (medium risk)	I	II	III	IV
roup 3 (medium/high risk)	I	II	III/IV	IV
roup 4 (highest risk)	II	III/IV	III/IV	IV
CLASS I	1. Execute work by methods to minimize raising dust from construction operations 2. Immediately replace ceiling tiles displaced for visual inspections		**Upon Completion of Project** Work area will be cleaned if necessary.	
CLASS II	1. Provide active means to prevent airborne dust from dispersing into atmosphere. 2. Water mist work surfaces to control dust while cutting. 3. Seal unused doors with duct tape. 4. Block off and seal air vents as necessary		**Upon Completion of Project** 1. Contain construction waste before transport in tightly covered containe 2. Wet mop and/or vacuum with HEPA filtered vacuum before leaving work 3. Wipe work surfaces with cleaner/disinfectant. 4. Upon completion restore HVAC syste areas where work is being performe	
CLASS III	1. Isolate HVAC system in area where work is being done to prevent contamination of duct system. 2. Complete all critical barriers before construction begins. 3. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. 4. Contain construction waste before transport in tightly covered containers. 5. Cover transport receptacles or carts. Tape covering unless solid lid. 6. Place dust mat at entrance and exit of work area. 7. Wet mop and/or vacuum with HEPA filtered vacuum before leaving work area.		**Upon Completion of Project** 1. Follow Class II guidelines. 2. Do not remove barriers from work ar until completed project is thoroughly cleaned by Environmental Services Department. 3. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. 4. Vacuum work area with HEPA filtere vacuums. 5. Wet mop area with cleaner/disinfect	
CLASS IV	1. Implement all of Class III measures. 2. Seal holes, pipes, conduits, and punctures appropriately. 3. Construct anteroom and require all personnel to pass through this room so they can be vacuumed using a HEPA vacuum cleaner before leaving work site. They can wear cloth or paper coveralls that are removed each time they leave the work site instead of vacuuming. 4. All personnel entering work site are required to wear shoe covers. Shoe covers must be changed each time the worker exits the work area. 5. Provide adhesive walk-off mat at entrance to work area within the anteroom. Replace mats in accordance with manufacturer's recommendation.		**Upon Completion of Project** 1. Follow Class III guidelines. 2. Cover transport receptacles or carts. covering unless solid lid.	

Replace Primary on Monday, Wednesday & Friday

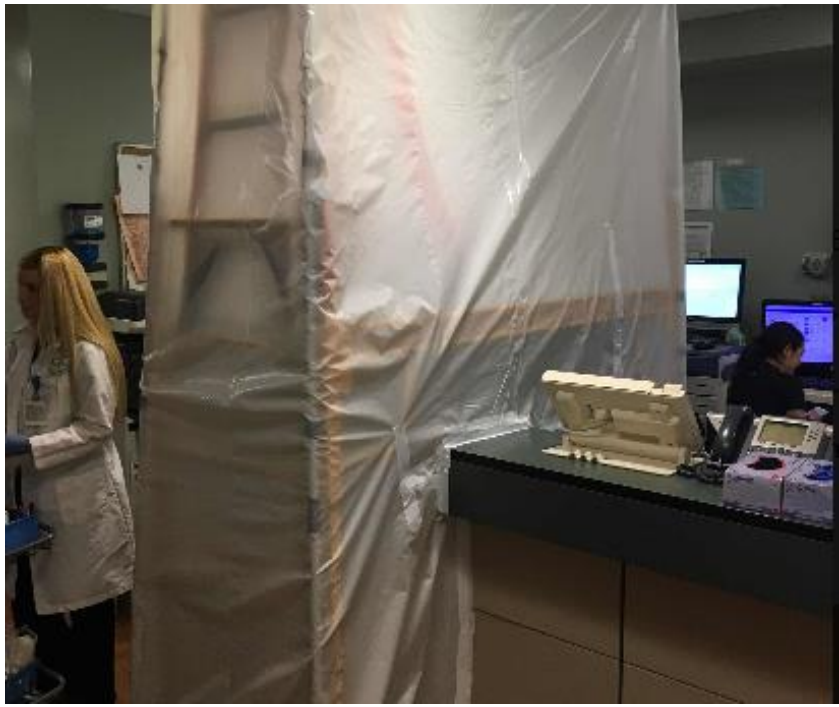
Replace Secondary on Monday

Replace HEPA 1st of every month

	Week of				Week of				
	Monday		Wednesday	Friday	Monday			Wednesday	Frid
Hepa Scrubber #	Replace Primary	Replace Secondary	Replace Primary	Replace Primary	Replace Primary	Replace Secondary	Replace HEPA	Replace Primary	Replace
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									

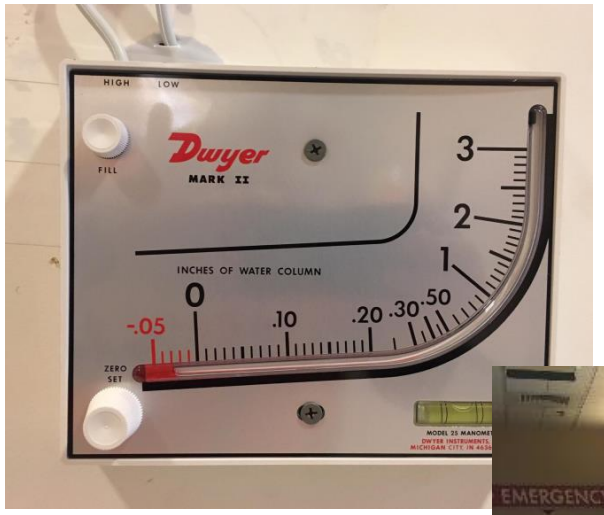
ILSM / ICRA / Phasing & MOPs

- **ICRA Expectations and Protocols:**
- Who is accountable
  - Patient care, infection control, worker safety involves everyone
  - Facility is responsible for establishing the criteria
  - GC is responsible for the means of ensuring the protective layer
  - Everyone that enters the construction area is responsible for following the established protocol



ILSM / ICRA / Phasing & MOPs

- **ICRA Expectations and Protocols:**
- Who inspects the ICRA
  - GC Daily
    - Barrier Integrity
    - Pressure relationships
    - Air Filter Maintenance
    - Fire Alarm System access
    - Access & Debris
  - Facilities
    - Prior to set up and after tear down at a minimum
    - Periodic visit to ensure standards are being followed



Temporary Equipment/Utilities

- The duration that temporary utilities will be in place drives what level of requirements the system will need to be design to.
- Reference Can 2-108
- Case Study
  - Replacement of Chiller & Cooling tower at operating hospital
- Interim

CODE APPLICATION NOTICE (CAN)

	Short-Term Temporary Permit 7-day maximum	Mid-Term Temporary Permit 30-day maximum	Long-Term Temporary Permit 180-day maximum
Temporary chillers	Temporary chillers located outdoors, the pressure relief shall be located a minimum 10 feet from windows or outside air intake locations.	Temporary chillers located outdoors, the pressure relief shall be located a minimum 10 feet from windows or outside air intake locations.	Temporary chillers located indoors shall comply with all requirements of CMC Chapter 11. If located outdoors, the pressure relief shall be located a minimum 10 feet from windows or outside air intake locations.
Flexible ductwork	Flexible ductwork is permitted between the temporary unit and the hard duct system.	Flexible ductwork is permitted for distances up to 25 feet in length.	Flexible ductwork is permitted for distances up t 25 feet in length.
Flexible piping	Flexible piping, rated for the pressure and media, is permitted between the temporary unit and the rigid piping system.	Flexible piping rated for the pressure and media is permitted for distances up to 25 feet maximum in length.	Flexible piping rated for the pressure and media is permitted for distances up to 10 feet in length.
Seismic bracing of temporary piping, conductors and ductwork	Short-term temporary piping, conductors and ductwork do not require seismic bracing.	Mid-term temporary piping, conductors and ductwork do not require seismic bracing.	Long-term temporary piping, conductors and ductwork shall be secured/supported. Seismic design for supports and attachments of long-ter temporary piping, conductors and ductwork is n required.
Protective barriers	Barriers shall be provided for pipes, ducts and conductors associated with temporary equipment to protect them from physical damage. Short-term temporary utilities shall not be subjected to vehicular traffic.	Barriers shall be provided for pipes, ducts and conductors associated with temporary equipment to protect them from physical damage. Temporary utility lines subject to vehicular traffic shall be placed in trenches covered with traffic-rated plates. Temporary fuel gas service shall be protected against damage per CPC Section 1207.0.	Barriers shall be provided for pipes, ducts and conductors associated with temporary equipmer to protect them from physical damage. Temporary utility lines subject to vehicular traffic shall be placed in trenches with backfill and covered with traffic-rated plates. Temporary fue gas service shall be protected against damage per CPC Section 1207.0.
Protection of temporary electrical equipment	Short-term temporary electrical equipment and cables shall be protected from physical damage and guarded with suitable fencing, barriers, or other effective means to limit access only to authorized and qualified personnel per CEC Article 590.	Mid-term temporary electrical equipment and cables shall be protected from physical damage and guarded with suitable fencing, barriers, or other effective means to limit access only to authorized and qualified personnel per CEC Article 590.	Long-term temporary electrical equipment and cables shall be protected from physical damage and guarded with suitable fencing, barriers, or other effective means to limit access only to authorized and qualified personnel per CEC Article 590.

DISCOVERED CONDITIONS

- What are Non-compliant Existing Conditions And Who Makes That Determination?
  - IOR? Compliance Officer? DPOR?
- What Should The Project Team Do When A Non-compliant Existing Condition Is Discovered Within The Scope Of A Remodel
- Defining the boundaries of a project
- How Far Outside Of The Remodel's Scope Of Work Will The Non-compliant Condition Need To Be Corrected?
- Area of Influence

DISCOVERED CONDITIONS

- **Accuracy of Record Drawings**
  - Example – Med Gas Annunciation wiring
    - Routing not identified on record drawings
    - Location made it undetectable during GPR
    - During Saw Cutting 16 Med Gas points went into Alarm
    - Because of team communication with facilities the cause was quickly identified
    - Temp Fix in place within 6 hours
    - Permanent fix was approved within 2 weeks.
    - The onsite IOR helped coordinate with CO for a quick review of the RFI and approval of the MOP so that final repair work could occur quickly

DISCOVERED CONDITIONS

Maintenance items encountered during investigation

- Example - Shower drain
  - During Investigation water staining was observed & questioned. Discarded as old problem.
  - Demo proceeded until a Framer caught a drip to the face from an LDR drain
  - Further investigation found cause to be leaking gaskets that should have been replaced as part of a maintenance program
  - Sheet Rock activities were delayed until the previously unidentified problem was fixed.
- Example - Air Filter Example
  - Air Balance became an issue when design values could not be achieved.
  - Several Maintenance items and original build design issues were identified that affected air flow.
  - Lesson Learned : when taking pre-balance readings investigate the condition of the system. Report deviations from design values early so that maintenance items can be coordinated before they impact the construction schedule

Discovered Conditions

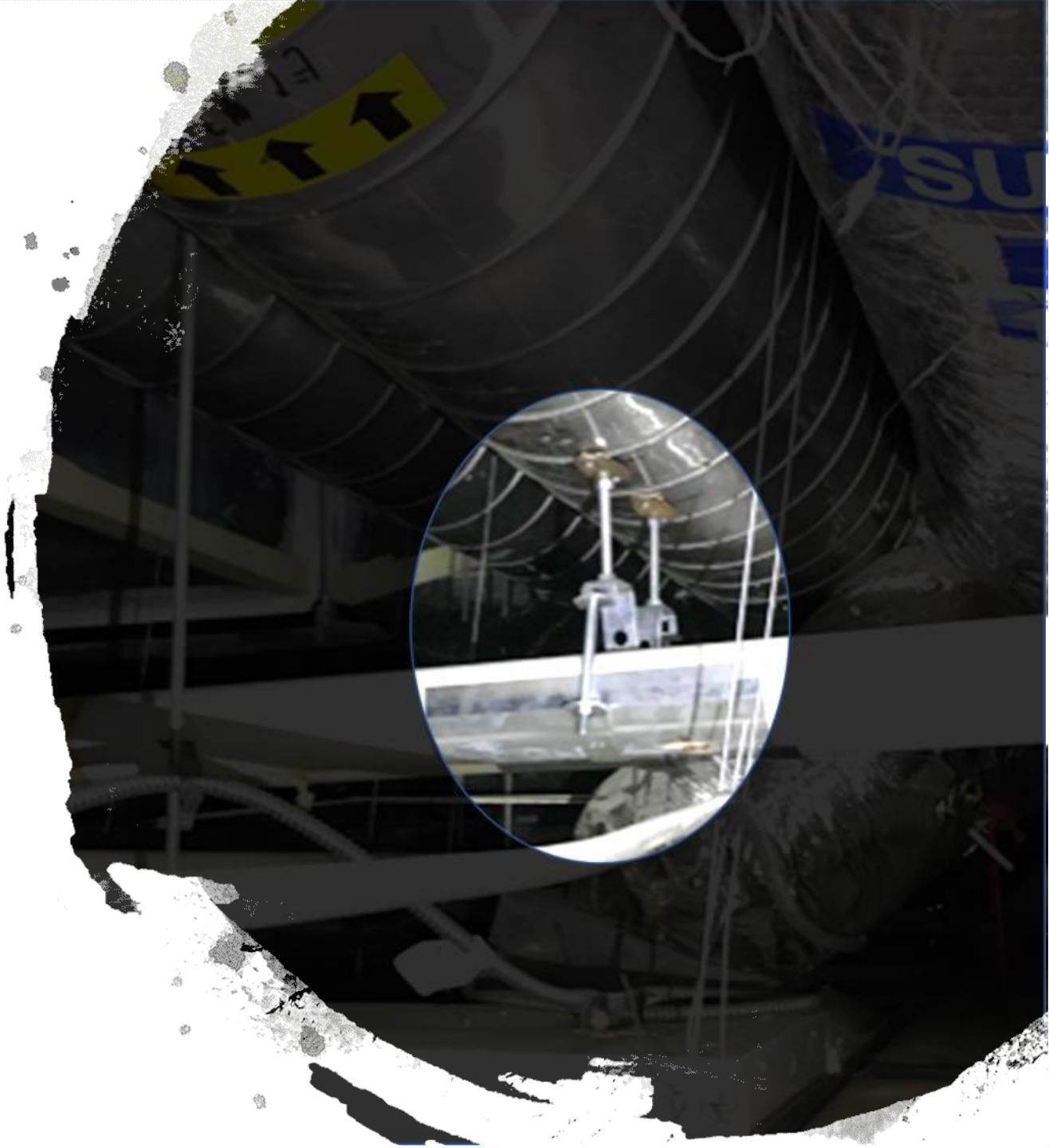
Deficiencies from prior construction

- Example - Missed Seismic Braces
  - Demo and new work for a remodel project was coordinated efficiently.
  - NPC ratings were assumed at face value shown on website
  - CO noticed something missing on adjacent work during a final ceiling close up inspection.

Discovered Conditions

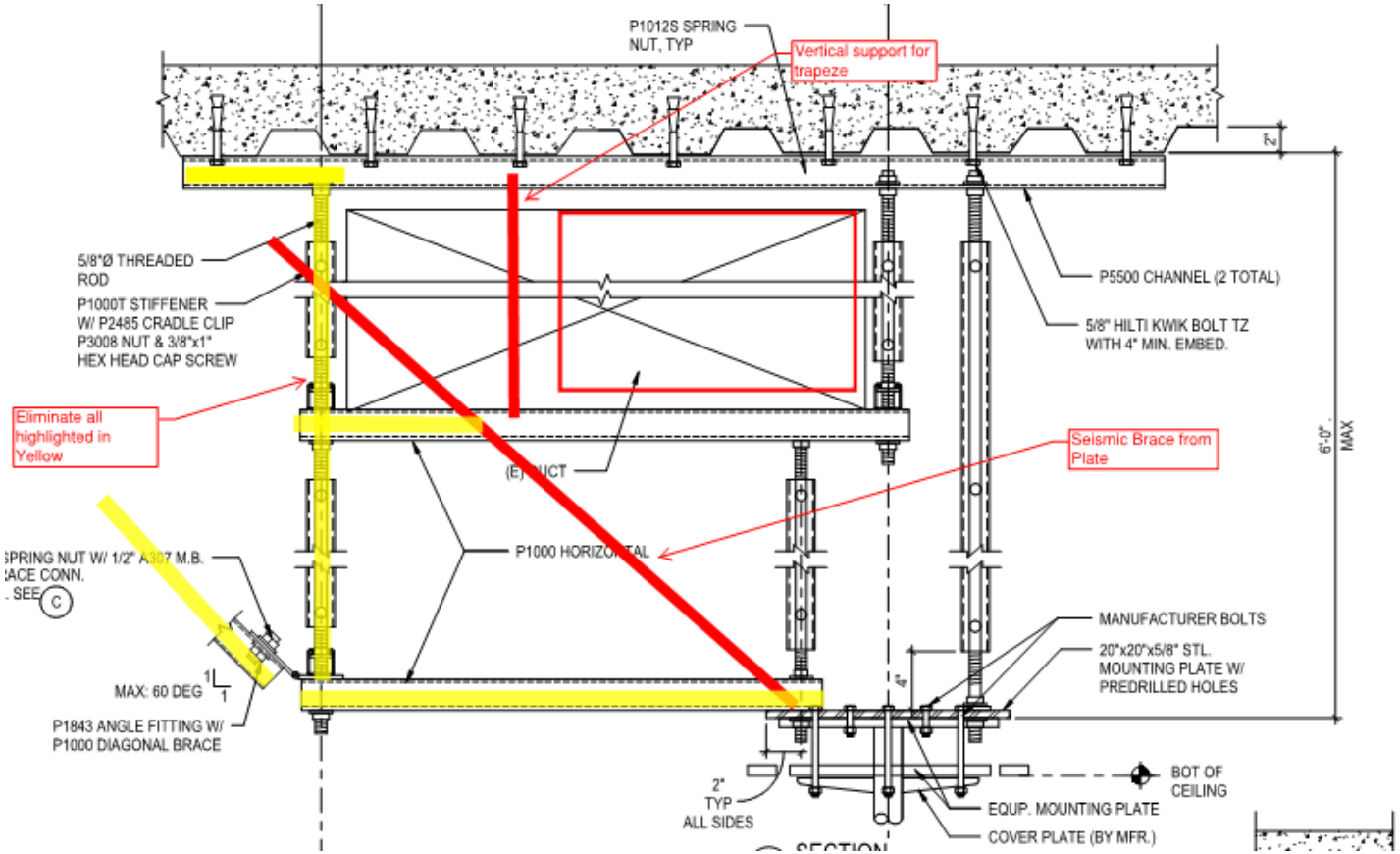
Deficiencies from prior construction

- Example - Missed Seismic Braces
  - Demo and new work for a remodel project was coordinated efficiently
  - NPC ratings were assumed at face value shown on website
  - CO noticed something missing on adjacent work during a final ceiling close up inspection
- Example – hanging rods suspended from duct
- Example - Abandoned FSD
  - Simple removal of an abandoned FSD
  - Team received a call from a nurse in the adjacent space.
  - Further investigation found previous non-compliant construction was causing a problem
  - Patient room had to be closed down early while remediation work occurred.



Discovered Conditions

- The “Golden Conduit”
  - Identification of every small conduit that gets demo’d is tough to do during investigation
    - Invest in tracing out every single LV data point and electrical run during preconstruction or wait until containments starts and faculty are moved out?
      - Pros & Cons of 2 options
  - Example
    - Remodel on the first floor of a hospital to change a reception area into patient rooms.
    - Concealed conduit bank vs exam light unistrut
    - Lesson learned – in a remodel project the details need to allow for flexibility to work around existing conditions



Supporting Utilities Around Obstructions

Trapeze to Trapeze

- Consider install requirements also, how will a worker get tools up to install what is being drawn.
- Model Fixed elements early for coordination
  - Patient lift supports, boom light supports
  - Elements with fixed locations and fixed supplemental steel angles should be put in the model early and considered during construction sequencing
- Talk about re-using existing anchors or trapezes supporting existing systems.
- New wall detail for attaching angle to the face of the full height wall.

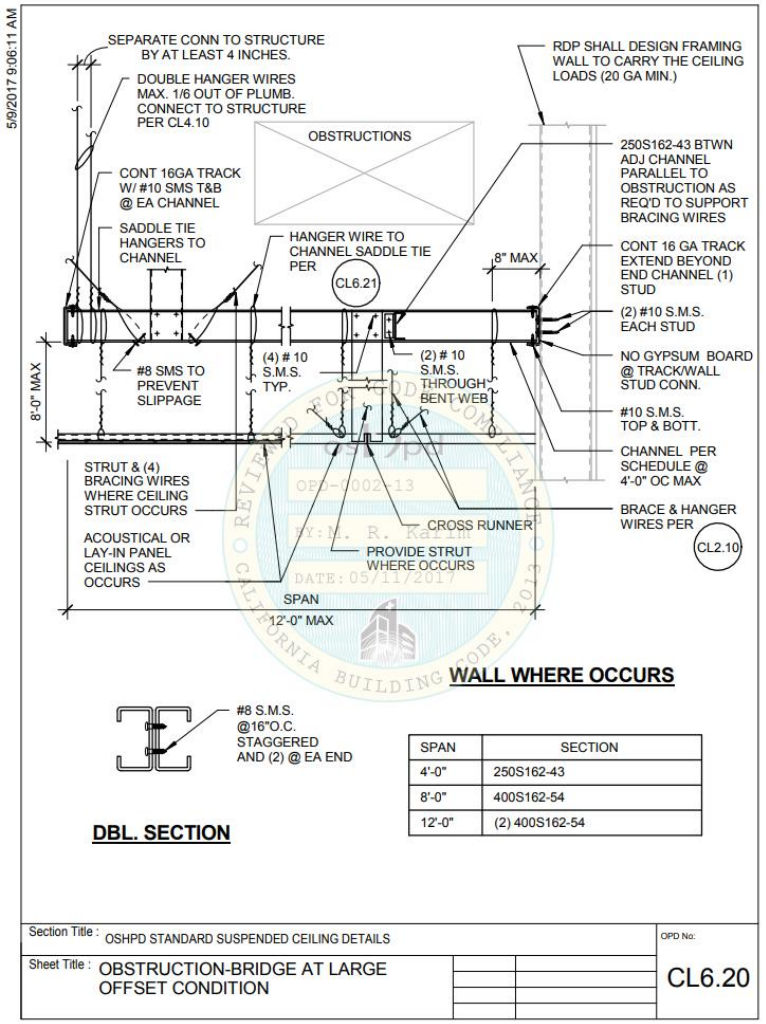
UTILITY SUPPORT AROUND OBSTRUCTIONS

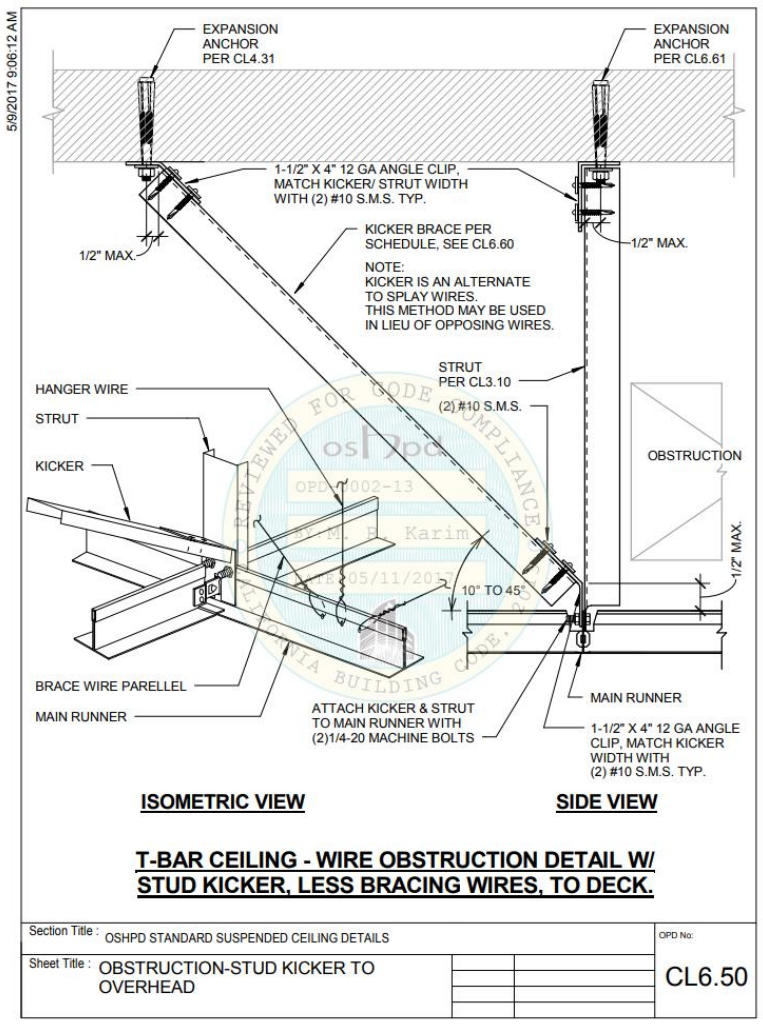
Top Notable Issues

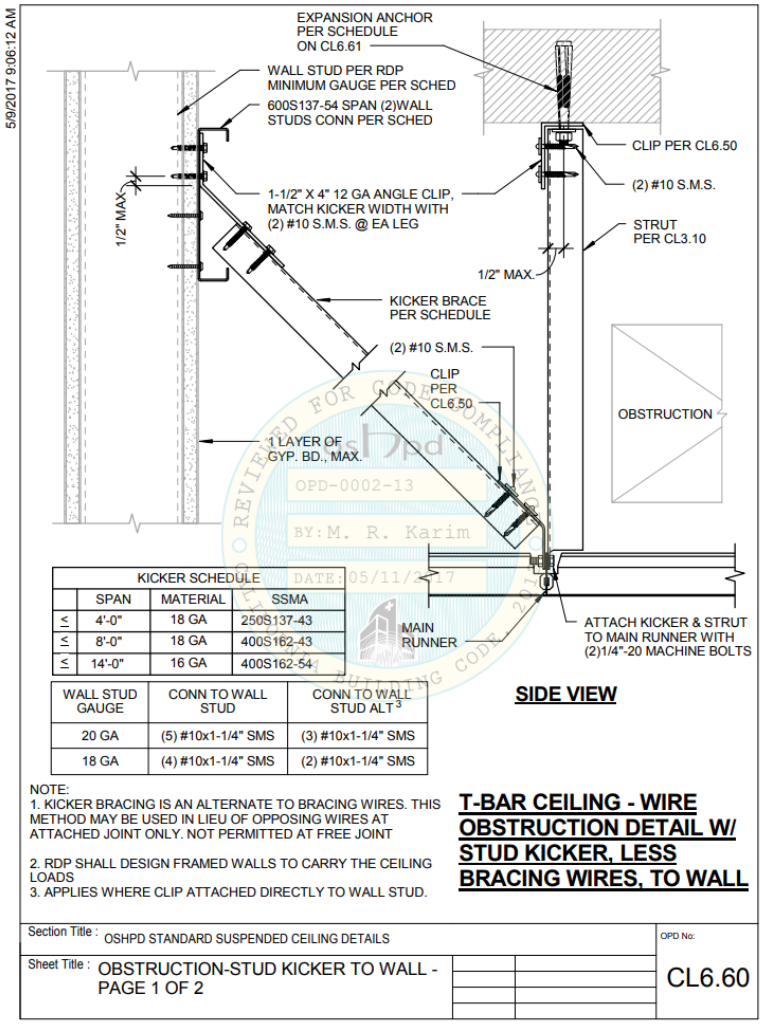
- **Patient Lift Support Obstruction**
- **Thorough Site Survey to avoid conflicts with MPE systems**
- **Great Owner driven / monitored coordination**
- **Minimize modifications to existing ceiling framing**
- **Fast response to discovered conditions**

Typical pendant and brace installation configuration

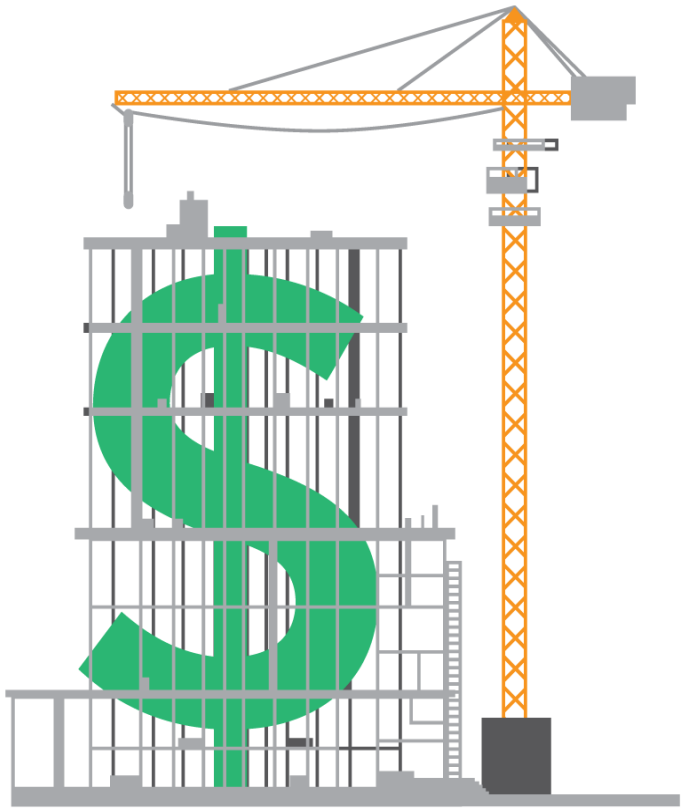
PRE-APPROVED OBSTACLE DETAILS

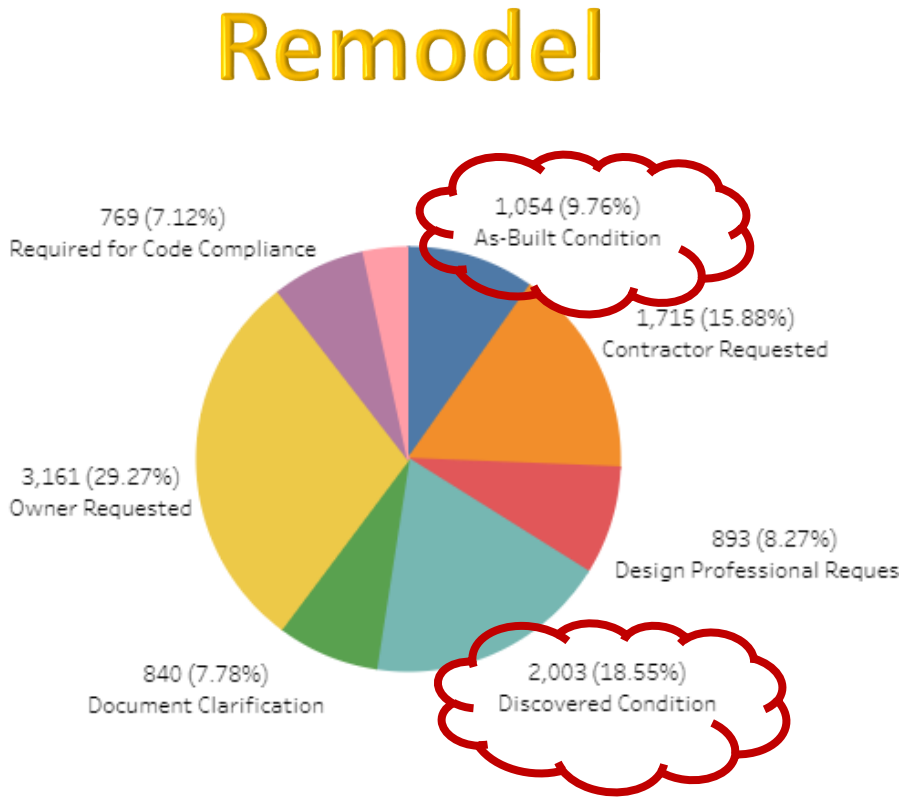






HISTORY OF REMODEL ACDs





AMENDED CONSTRUCTION DOCUMENTS (ACDs)

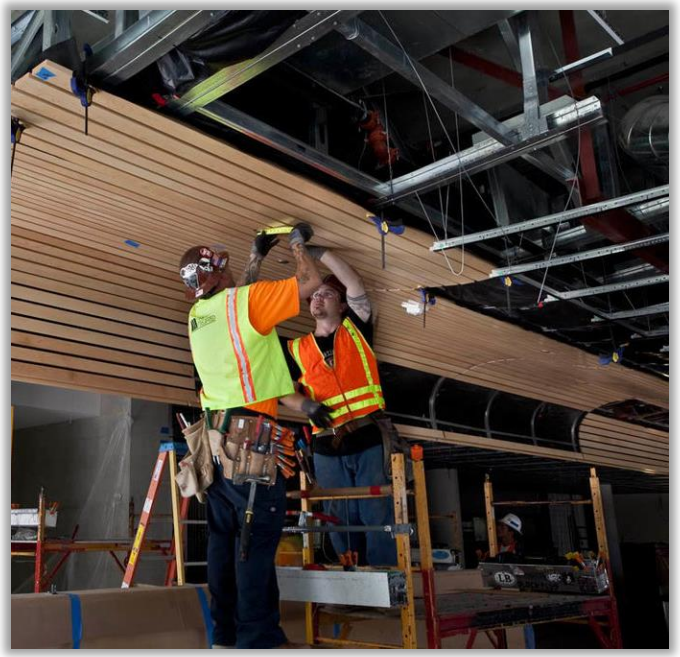
Materially Altered CAN 2-107.4

- OSHPD will only review changes made during construction that materially alter the work
- If calculations by a structural engineer are necessary to determine structural or nonstructural adequacy, an ACD must be submitted to OSHPD for review
- If the architect or engineer in responsible charge of a project determines that plans and/or specifications are necessary for a change that does not materially alter the work, all such plans or specifications shall be stamped and signed by the appropriate design professional(s) pursuant to Section 7-115 of the 2010 CAC
- All changes in the work are subject to the concurrence of OSHPD field staff as to whether or not the change materially alters the work
- If DPOR determines change is Non-materially Altered, can proceed “at risk”
- If Field Review is requested, field staff must be contacted to schedule review

AMENDED CONSTRUCTION DOCUMENTS (ACDs)

Non Materially Altered Criteria

1. Clarification and interpretation of plans and specifications by the responsible design professional
2. Construction means and methods, such as construction sequencing, coordination of the work, and methods of assembly/construction
3. Substitutions of **equipment**, products, or materials
4. New details that are based on other approved details, in whole or in part, including referenced standards or preapproved details
5. Final routing configurations of ducts, conduits, pipes, etc. where these are shown diagrammatically on the approved plans



AMENDED CONSTRUCTION DOCUMENTS (ACDs)

Non Materially Altered Criteria (cont.)

6. Dimensional changes to rooms, other than Incidental Use Areas, that do not affect code required minimum dimensions, fixed dimensions, minimum room or space requirements and required clearances

7. Relocation of doors, windows, electrical switches and outlets, plumbing fixtures, etc. that do not require additional changes to the work to make the relocation code compliant

8. Relocation or reconfiguration of cabinetry that does not affect code required minimum dimensions and clearances, minimum room or space requirements, minimum storage requirements

CONSTRUCTION TOLERANCES FOR ACCESSIBILITY

- Accessibility guidelines and standards, including those issued under the ADA, generally recognize construction tolerances, but **they do not identify acceptable tolerances for specific dimensions.**

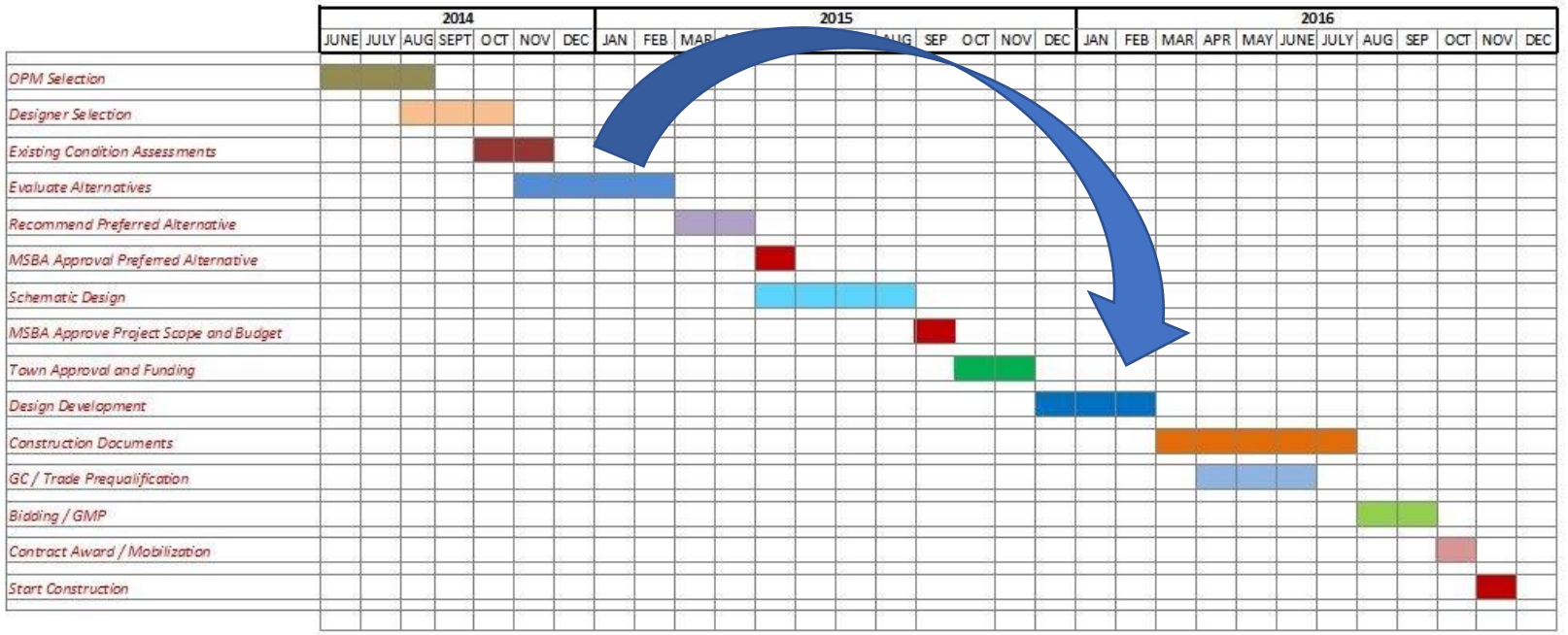
- Tolerances must be based on the construction methods and materials used.

- The Department of Justice has taken the position that tolerances **cannot be predefined** but must always be considered on a case-by-case basis considering the design, the materials and methods, and the specific field conditions. The California State Attorney General's office has taken the same position.

	Size of member	Tolerance
Clear distance to side	< 4 in.	+¼ in., -⅜ in.
	4–12 in.	-⅜ in.
	12–24 in.	-½ in.
	> 24 in.	-1 in.
Concrete cover	< 12 in.	-⅜ in.
	> 12 in.	-½ in.
Distance between reinforcement: ¼ specified distance not to exceed 1 in.		

Critical Path Expedite

- What qualifies as an Critical Path Expedited Review?
- Who approves?
- How to process?



TEAM CULTURE IN THE FIELD

Job walks with the OSHPD Field Staff

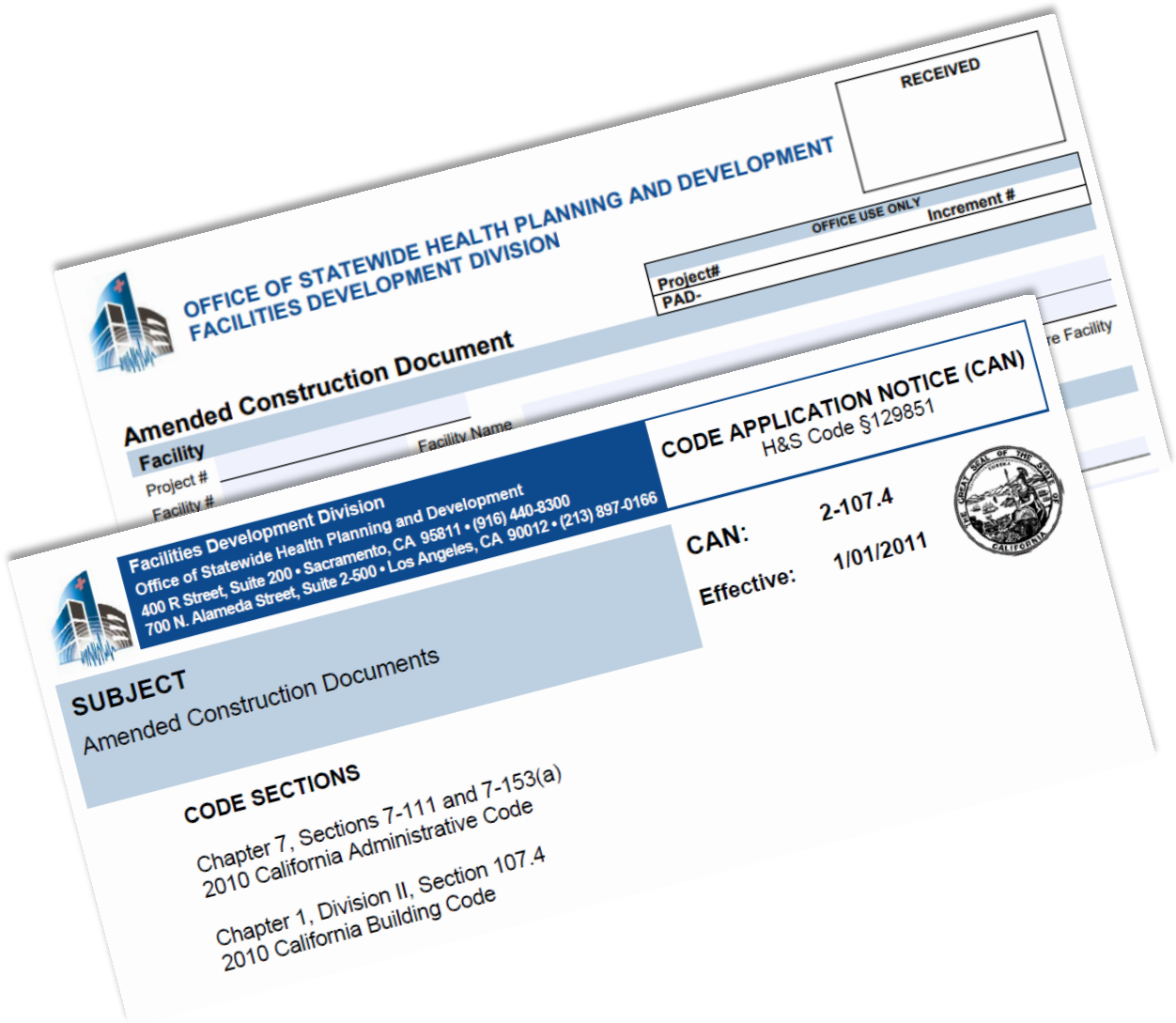
CULTURE

- **Culture of Teamwork**
- **Responsibilities**
  - TIOs
  - Field Reviews
- **Communications**
  - Owner, Design Team, General Contractor
  - IOR
  - OSHPD, CO, DSE, FLSO
- **Aligning Expectations of All Stakeholders including OSHPD Field Staff**

RESOURCES DURING CONSTRUCTION

RESOURCES

- *e*CPR & AMCs
- RAD (internal)
- Methods of Procedures (MoPs)
- Non-Materially Altered
- ACDs
- Substantial Compliance
- Critical Path Expedite



RESOURCES

- Certificate of Occupancy - a document issued by a local government agency or building department certifying a building's compliance with applicable building codes and other laws, and indicating it to be in a condition suitable for occupancy.
  - A certificate is generally required whenever:
    - a new building is constructed
    - a building built for one use is to be used for another

RESOURCES

- Certificate of Occupancy - a document issued by a local government agency or building department certifying a building's compliance with applicable building codes and other laws, and indicating it to be in a condition suitable for occupancy.
- Substantial Completion - a stage of a construction or building project that is sufficiently complete, in accordance with the construction contract documents, so that the owner may use or occupy the building project or designated portion thereof for the intended purpose
  - a new building is constructed
  - a building built for one use is to be used for another

RESOURCES

- Certificate of Occupancy - a document issued by a local government agency or building department certifying a building's compliance with applicable building codes and other laws, and indicating it to be in a condition suitable for occupancy.
- Substantial Completion - a stage of a construction or building project that is sufficiently complete, in accordance with the construction contract documents, so that the owner may use or occupy the building project or designated portion thereof for the intended purpose
- Substantial Compliance - a stage of a construction or building project, or a designated portion of the project, that is sufficiently complete in accordance with the approved construction plans and the California Building Standards Code such that the owner may use or occupy the building project, or designated portion thereof, for the intended purpose.
  - Remodels and Renovations only
  - Sets CDPH Timeline for Survey
  - Allows for partial or conditional occupancy

RESOURCES

- Certificate of Occupancy - a document issued by a local government agency or building department certifying a building's compliance with applicable building codes and other laws, and indicating it to be in a condition suitable for occupancy.

- Substantial Completion - a stage of a construction or building project that is sufficiently complete, in accordance with the construction contract documents, so that the owner may use or occupy the building project or designated portion thereof for the intended purpose

- Substantial Compliance - a stage of a construction or building project, or a designated portion of the project, that is sufficiently complete in accordance with the approved construction plans and the California Building Standards Code such that the owner may use or occupy the building project, or designated portion thereof, for the intended purpose.

- Construction Final / Project Closure
  - Remodels and Renovations only
  - Starts 30-day Project Closure Process
  - Sets CDPH Timeline for Survey
    - Final Verified Compliance Reports (VCR)
  - Allows for partial or conditional occupancy
    - Final TIO Sign-Offs
    - Final Cost of Construction

Tips for Success

- Remember to Review Record Drawings
- Remember Site Investigation
- Use OSHPD Pre-approved Details
- Develop a Collaborative Culture and Define Conditions Of Satisfaction Between the OWNER, IOR, DPOR, GC and OSHPD Field Staff Prior to Construction Start
- Include Construction Barriers and Infection Control Requirements on the Project Plans if Necessary
- Use the Remodel CAN!
- Don’t be afraid to call OSHPD.

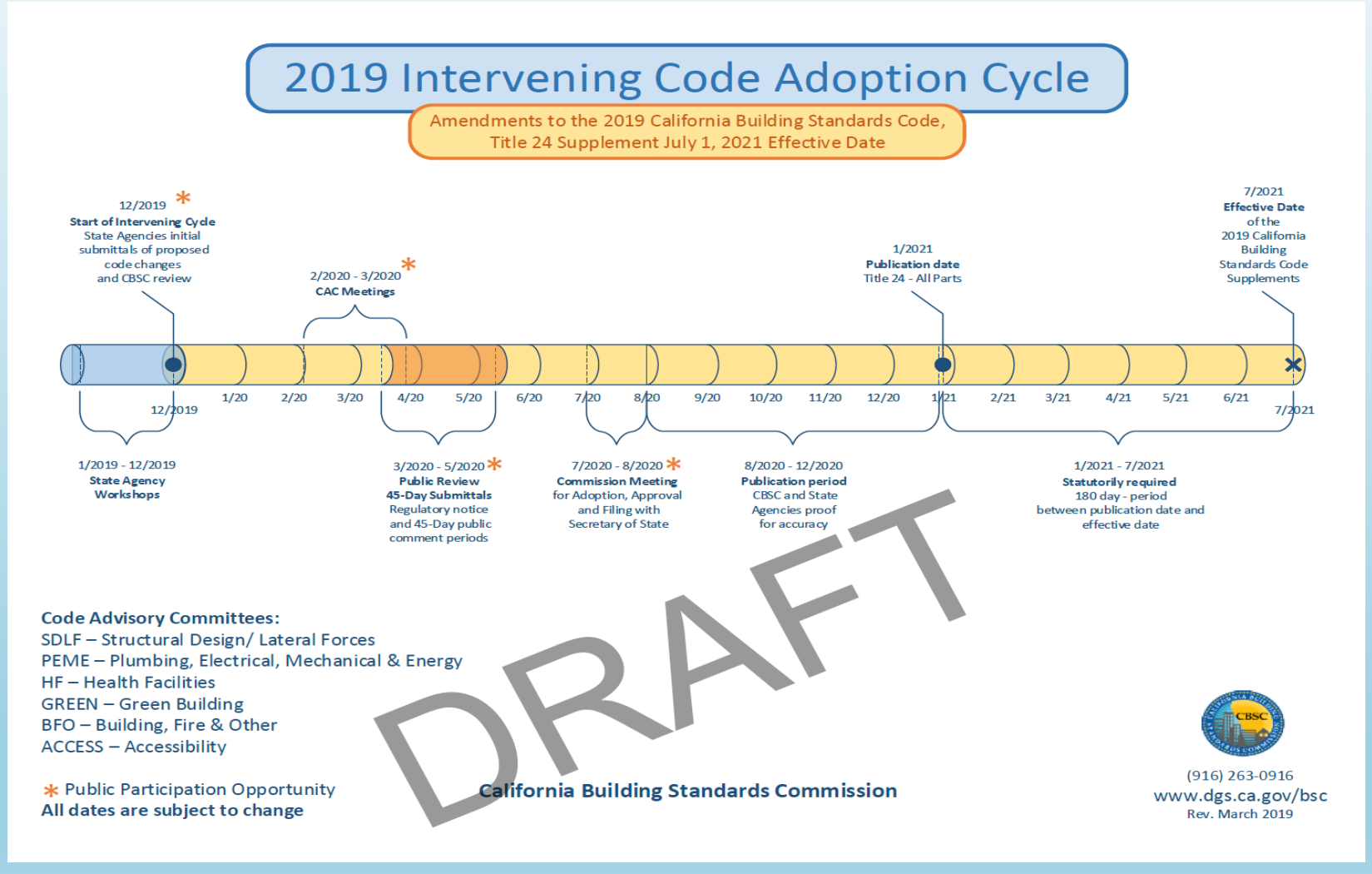
Wrap Up…

Remodel PLUS…

Clear Paths to Success
&
Working with Unknowns

2019 Intervening Code Cycle

Change Continues …



Where codes and regulations are going

- A mix of prescriptive and performance-based building standards will continue
- Costly declared emergencies will bring pressure for more existing building retrofits
- Use national standards to extent possible – ICC codes, FGI, etc.
- More economic impact assessments to ensure cost-effective codes and regulations
- Codes, standards, and regulations are subject to CEQA – environmental impact assessment
- New standards will be need to be developed to regulate technology-driven building components and systems
- Incorporation of reference standards will continue
- Incorporation of new materials and construction methods, such as fuel cells, etc.
- More involvement of Legislature in code change and development as a result of Lobbyists
- Less frequent code change cycles

OSHPD's policy for adoption of building codes, standards, and regulations:

- Adopt national codes, standards, and regulations unless there is an identifiable and justifiable basis for California to have a different building code, standard, or regulation based on the following criteria:
  - Statutory requirement(s)
  - Geological
  - Geographical
  - Climatological
- Involve stakeholders to the extent possible in the development and adoption process(es):
  - Bring proposed building codes, standards, and regulations before a public meeting of the appropriate committee of the HBSB
  - Post proposed building codes, standards, and regulations on its website for public notification and comments
  - Building codes, standards, and regulations go through the Building Standards Commission's public hearing and adoption process(es)

Code Application Notice 2-0 OSHPD Jurisdiction

Facilities Development Division
Office of Statewide Health Planning and Development
400 R Street, Suite 200 • Sacramento, CA 95811 • (916) 440-8300
700 N. Alameda Street, Suite 2-500 • Los Angeles, CA 90012 • (213) 897-0166

CODE APPLICATION NOTICE (CAN)
H&S Code §129851

SUBJECT
OSHPD Jurisdiction
(formerly CAN 1-7-103)

CAN: 2-0
Effective: 7/15/2013
Revised: 2/19/2014

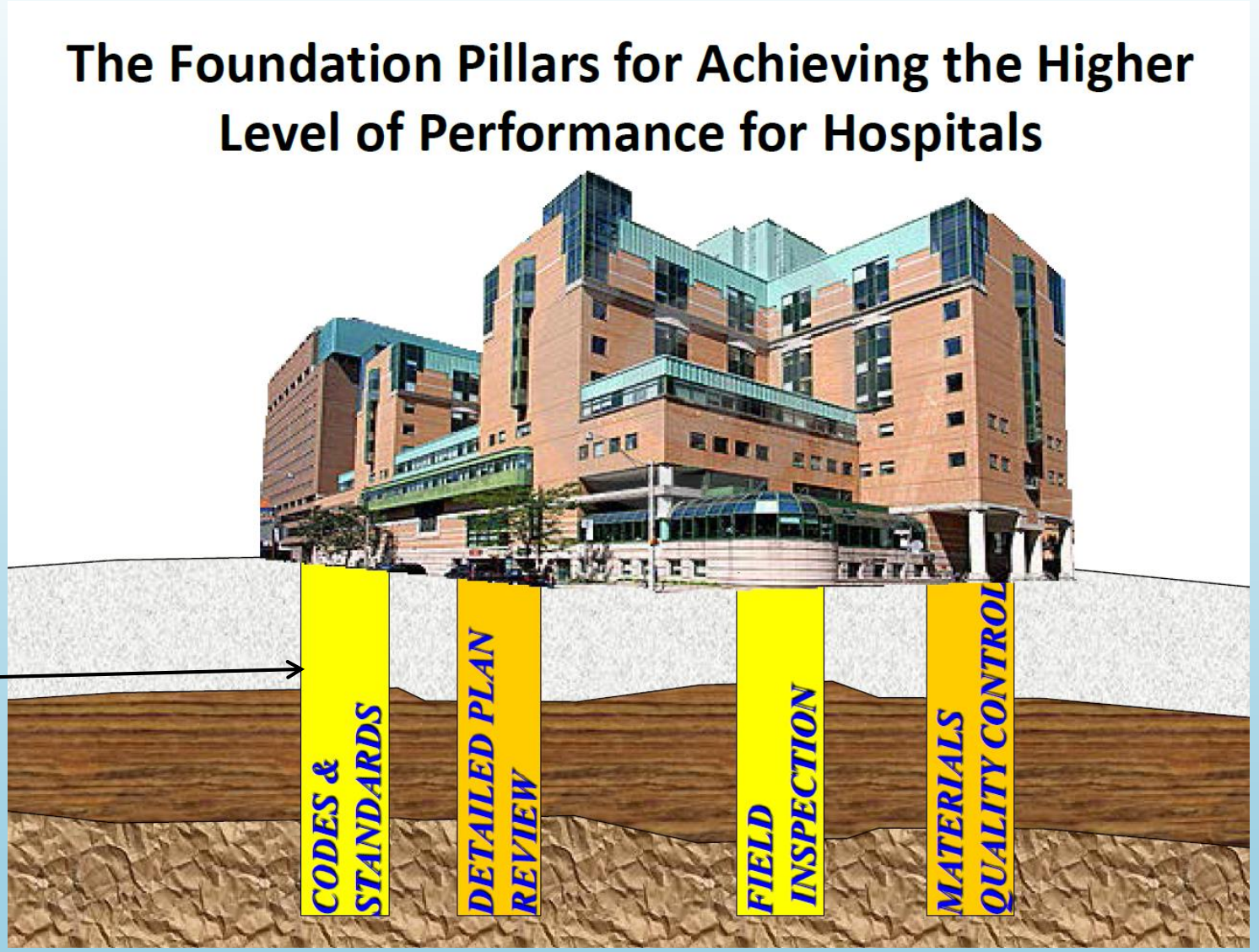
OSHPD is the Building Department for Hospitals

- Preempts local jurisdictions from the enforcement of all building standards published in the California Building Standards Code relating to the regulation of hospital buildings, acute psychiatric hospitals, skilled nursing facilities, intermediate-care facilities and under certain circumstances, some clinics as codified in the California Health and Safety Code

OSHPD only preempts the local building official and recognizes the authority of other local agencies that retain their respective jurisdictions.

- Planning and Zoning Departments
- Local Health Departments
- Public Works Departments
- Fire and Police Departments
- ALL retain the jurisdictional authority with which they are normally charged

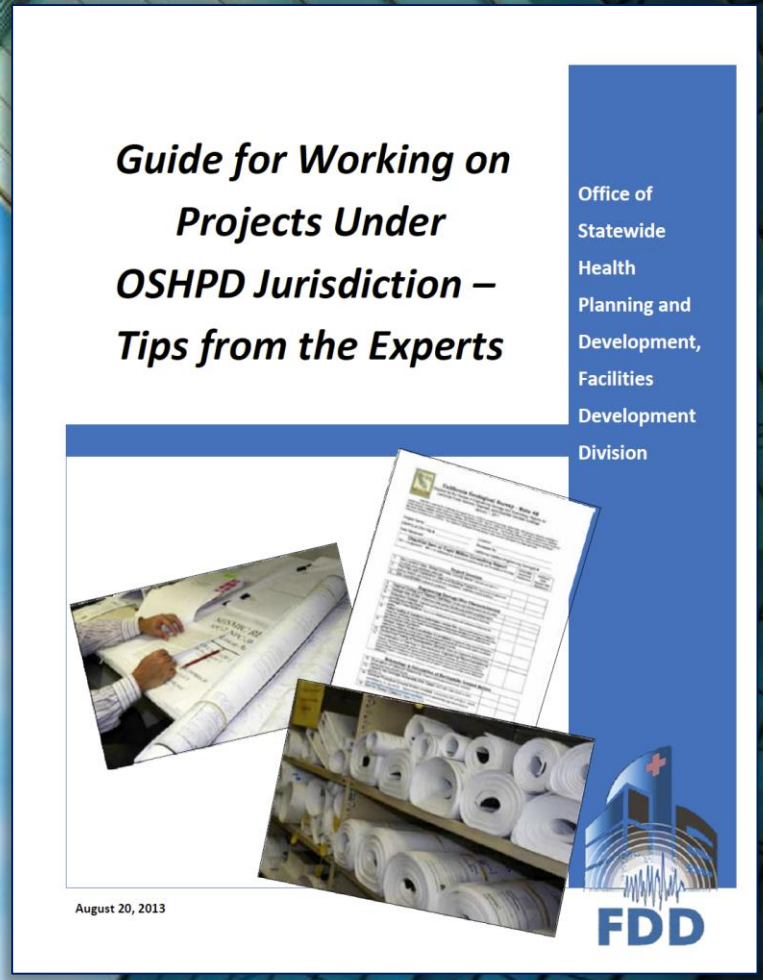
Higher standards and codes alone are not sufficient



Guide for Working on Projects Under OSHPD Jurisdiction

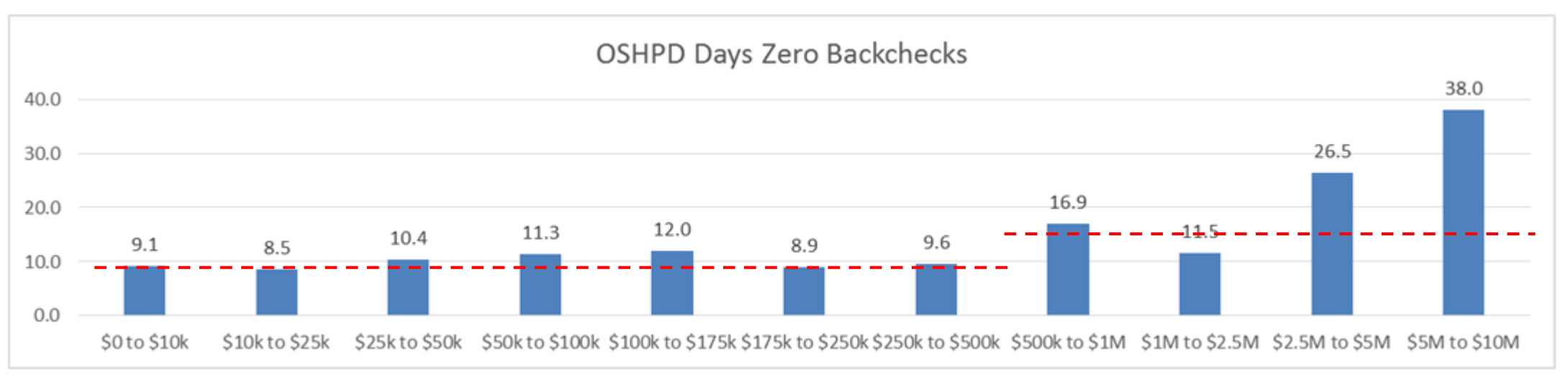
For a successful project:
Be sure to have this in your toolkit

Section 1 – Introduction to OSHPD FDD
Section 2 – Geologic Hazards Investigation Guidelines
Section 3 – Plan Design and Review Guidelines
Section 4 – Inspector of Record Guidelines
Section 5 – Testing, Inspection, and Observation Guidelines
Section 6 – Guidelines for Working with OSHPD FDD Field Staff
Section 7 – Guidelines for Hospitals in Working with OSHPD
Section – Glossary: Acronyms and Definitions



https://www.oshpd.ca.gov/Boards/HBSB/Guide-WrkgProj-OSHPD_Jurisdiction-TipsfromExperts.pdf

Tip of the Day



Tip from the expert:

Tip: *Provide complete, quality plans in order to eliminate or reduce back checks and thus decrease overall time to plan approval*

The expert