

# PIN 68

## Support and Attachment Requirements for Fixed, Interim, Mobile, Movable, Other and Temporary Equipment

OSHPD Webinar  
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## Introduction

- Current code requirements are causing inconsistent applications.
- PIN 68 requirements are incorporated into the 2019 mid code cycle.
- Does this PIN cover all possible cases?  
No.
- Is it OK to use now?
  - ✓ YES. Effective date: 3/4/2020
  - ✓ No Alternate Method of Compliance required.
  - ✓ Download PIN 68 pdf from OSHPD website:  
[oshpd.ca.gov/construction-finance/codes-and-regulations/#PINs](https://oshpd.ca.gov/construction-finance/codes-and-regulations/#PINs)

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### POLICY INTENT NOTICE

Interim,

**PIN: 68**

**Effective: 03/04/2020**

the service or maintenance  
ed or stationary n

## Equipment Classifications

- **FIXED**
- **MOVABLE**
- **MOBILE**
- **COUNTERTOP**
- **OTHER**
- **TEMPORARY**
- **INTERIM**

Table 1: Example of Equipment Schedule

ID	Description	Operating Weight (lb)	Width (in)	Height (in)	Depth (in)	Center of mass (in)	Detail	Classification								
								Fixed	Movable	Mobile	Countertop	Temporary	Interim	Other		
5	Rack, Server, Freestanding	500	24	72	37	36	xxx	X								
13	Table, Imaging, Rad/Fluoro, C-arm	938	22	40	80	24	xxx		X							
22	Stretcher, Crib, Pediatric	425	38	72	72	50	N/A			X						
30	Navigation System, Surgical, Robotic	5530	36	62	66	40	xxx			X						

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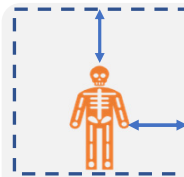
## More Terms:

### Essential



**ESSENTIAL EQUIPMENT** means equipment that failure of which will significantly impair operations during or after a disaster. The facility **shall determine which equipment is essential**. Essential equipment shall also include equipment that is required to provide **the basic services of the hospital** as defined in Section 1224.3 of the California Building Code (CBC).

### Patient Care Vicinity



**PATIENT CARE VICINITY (California Electrical Code, Section 517.2):** A space, within a location intended for the examination and treatment of patients, extending 6ft beyond the normal location of the patient bed, chair, table, treadmill, or other device that supports the patient during examination and treatment and extending vertically to 7 ft 6 in. above the floor.

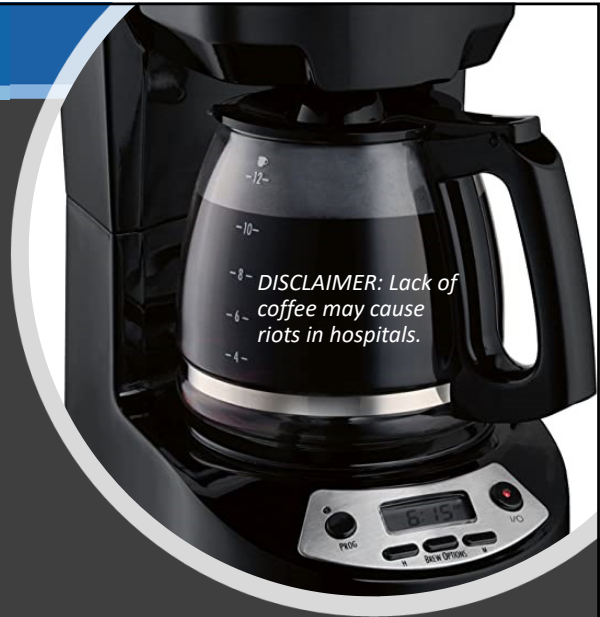
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## Exempt Equipment

- Furniture except storage cabinets (Table 3.5-1)
- Weighs 20 lb or less
- Distributed system, 5 lb/ft or less.

Exemption from seismic design (still positive attachment may be required):

- Seismic design need not be provided that are attached, detailed, < 400 lb, and C.G. < 4 ft and flexible connections are provided.



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## Exempt Equipment

- If an exempt item's seismic bracing is shown on a drawing, engineered design or calculations is not required.
- If there is a change to the exempt items, it shall be considered as a non-material alteration.
- Support and attachment of exempt equipment shall be determined by facility and/or design professional of record.



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## Exempt Equipment

### FAQ

Does “exempt equipment” mean “loose equipment” or “without anchorage”?

- Design professional of record shall determine if exempt equipment is to have positive attachment or is to remain unattached.
- Where design professional of record requires attachment of exempt items, support/attachment type shall be shown on the drawings. When applicable, the support/attachment installation shall be per manufacturer’s specifications.



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## Fixed Equipment

- *Typically remains in one fixed location*
- *Connected to utilities*
- **Excludes** equipment with plugs for 110/220-volt receptacles having a flexible cable/cord .
- **Excludes** equipment with pipe/tubing less than ½ inches with a shut-off valve.



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# Movable Equipment

- Same as *FIXED EQUIPMENT* but periodically moved to facilitate cleaning or maintenance
- Acceptable to use re-attachable anchors or restraints
- Utilities to have flexible connections

Support/attachment materials :

- Using AISC, AISI, ACI etc.
- OR have valid evaluation services report such as ICC-ES ESR, IAPMO UES ER, etc.
- OR tested x2 times the load
- OR manufacturer's load rating is x4 times load
- OR shake table tested



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# Movable Equipment

What is *in common* between Fixed and Movable?

- Both have *utilities* such as gas line, piping etc
- Both remain in same place

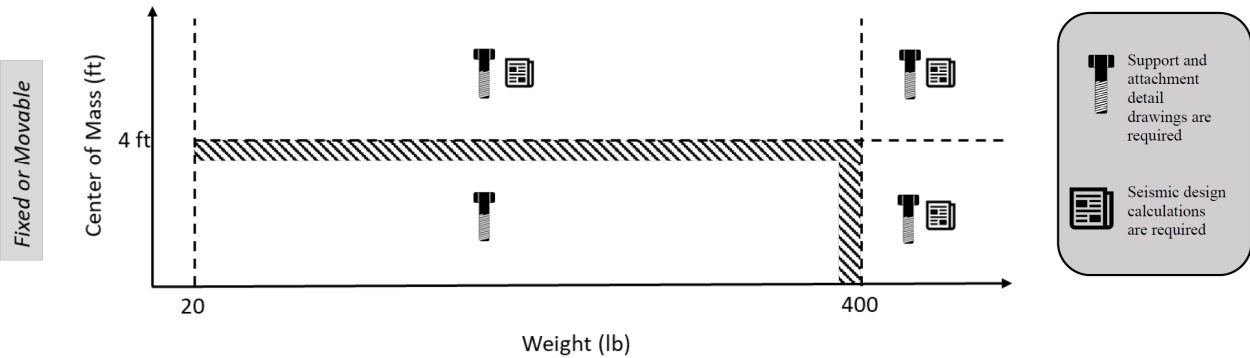
Examples:

1. Kitchen gas stove periodically pulled for cleaning → Movable
2. Lab equipment with 110v plug periodically pulled for cleaning → **NOT** Movable classification, possibly Other or Exempt
3. Mobile X-Ray machine that has a plug in, but moved to different patient rooms → **NOT** Movable, it is likely Mobile



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## Attachment Requirements: Fixed / Movable



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## Mobile Equipment

- Typically used in a *different location* than where it is stored and moved from one location in the building to another during ordinary use.

### FAQ

Is there an 8-hour rule?

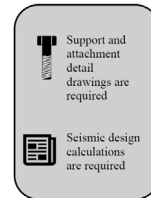
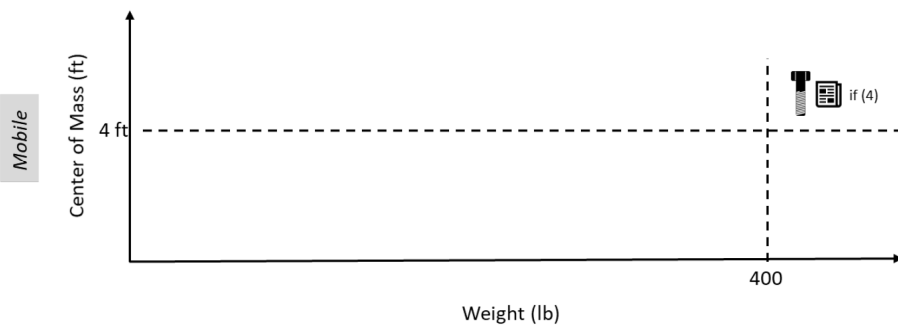
- No.



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## Attachment Requirements: Mobile



### Note:

4) Required if not stored in equipment **storage room**

## Other Equipment

- NOT included under fixed, movable, mobile, countertop, or exempt items
- Typically used at a single location
- NOT attached to utilities (110/220v plug OK)
- Acceptable to use re-attachable anchors or restraints
- Support/attachment materials : Same as "Movable"



# Other Equipment

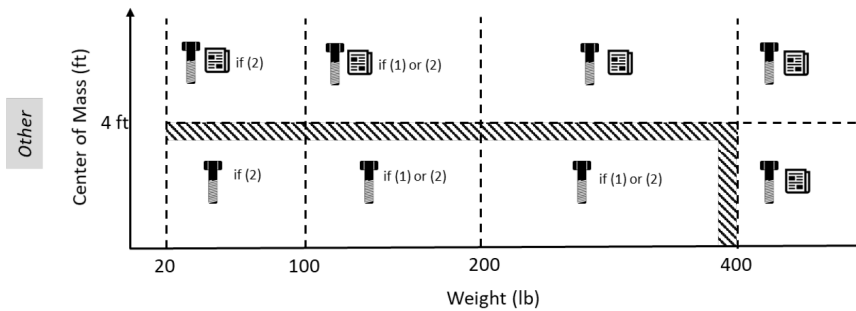
Anchor if:

- Essential to hospital operations and weight of equipment is greater than 100 lb.
- Could fall within the patient care vicinity as defined in Article 517.2 of the California Electrical Code.
- Could fall and block a required means of egress.
- Weight of equipment is greater than 400 lb.
- Weight of equipment is greater than 200 lb and center of mass located greater than 4 ft measured from the finished floor.



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# Attachment Requirements: Other Equipment



Support and attachment detail drawings are required

Seismic design calculations are required

- 1) Required if equipment is **essential** to hospital operations.
- 2) Required if the equipment could fall within the **patient care vicinity**. Required if the equipment could fall and block a required **means of egress**.

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# Countertop Equipment

- Typically remains on countertop, work bench, shelf or support other than the floor during its service life.
- SAME requirements for fixed, movable, mobile or other
- Acceptable to use re-attachable anchors or restraints [same support/attachment material requirements as OTHER]

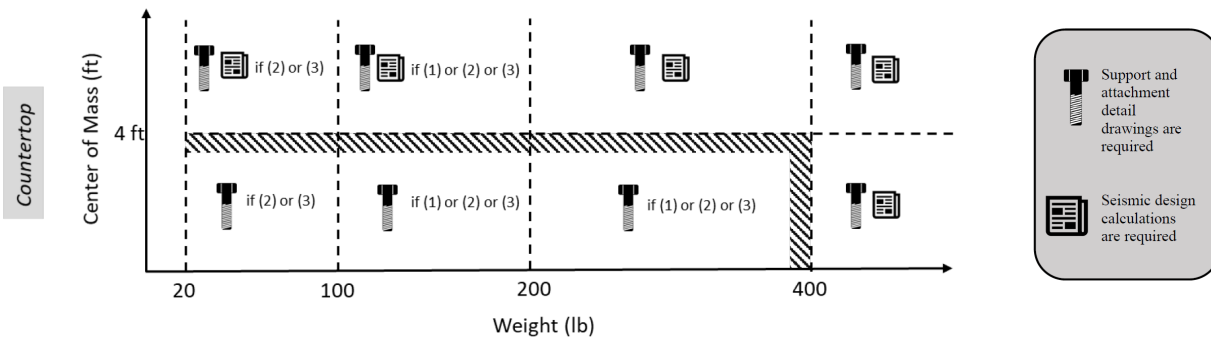


FAQ:

Q: If the countertop equipment is located on "furniture", does the furniture require anchorage?

A: Yes if the equipment is required to be anchored

# Attachment Requirements: Countertop



- 1) Required if equipment is **essential** to hospital operations.
- 2) Required if the equipment could fall within the **patient care vicinity**. Required if the equipment could fall and block a required **means of egress**.
- 3) Required if attached to **utilities**

# Temporary Equipment

- *180 days > use > 30 days*
- *Seismic 50% reduction allowed*
- *Wind speed reduction per ASCE 37-14 allowed*
- *Acceptable to use ballasts for overturning*
- *Seismic design for supports and attachments of temporary piping, conductors and ductwork is NOT required.*



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# Interim Equipment

- *Use > 180 days*
- *Only for the duration of the construction project that it is related to*
- *No seismic reduction allowed*
- *Wind speed reduction per ASCE 37-14 allowed*
- *Seismic design for supports and attachments of temporary piping, conductors and ductwork is NOT required.*



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## FAQ

*Most hospital shelving is not heavily loaded but frequently designed for paper media loading, which is too heavy for storage of medicine. Does the shelving anchorage need to be designed for the seismic mass based on manufacturer's rated shelving capacity?*

- *When anchorage is required, it is acceptable to use a maximum load based on type of storage for the shelving. The maximum load should not exceed the manufacturer's rated capacity.*



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## Questions?

[WebinarRoom@oshpd.ca.gov](mailto:WebinarRoom@oshpd.ca.gov)

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