# WALLS, CEILINGS, AND FLOORING TRADE
# MASONRY SUPPORT

## PROJECT OVERVIEW

A new hospital wing was under construction.

## MASONRY SUPPORT ISSUES

During construction, newly installed brick veneer masonry above a window span was noted as sagging and out of plumb, with gaps appearing in the brick grouting on the exterior.

**Two weeks after discovering the brick veneer was sagging, replacement brick masonry was scheduled to be installed above the window span on a connector corridor.**

- Before replacement, an inspection found inadequate structural metal studs used to create a support header.
- After discussions with the exterior contractor's Metal-Stud Engineer, it was determined that assumptions were made in the engineer's calculations, which resulted in materials and methods of construction being selected that were inadequate.

**After re-calculation, the Exterior Contractor upgraded the metal studs to a higher gauge material and rebuilt the header in a box beam configuration with lateral kicker elements for additional support.**

- The upgrade and rebuild provided the structural integrity required to carry the load of the brick veneer.
- The installed connector corridor brick was removed to allow the exterior structural elements to be replaced.

**Actual Cost:** Approximately $50,000 and delay to the project hospital wing occupancy

### How To Avoid These Issues

Architects and engineers must accurately review their designs. There are times when items are miscalculated.

**Installing contractors, use common sense.**

- If something looks inadequate compared to other elements being installed, there is a high likelihood that these also lack structural integrity.
- Trust your gut and question these items.

**Does your project have a similar condition?**

- If so, raise this concern through the Request For Information process.

**Brick Masonry Veneer Sagging**


## DISCUSSION QUESTIONS

1. Are there changes that need to be made to the structural exterior construction?
2. Are you missing any information to build these elements?
3. Do you think we are underbuilding any of the supporting components of this building?
4. If you have a question about a design, who would you ask?
   Would you bring this up or build it?

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# WALLS, CEILINGS AND FLOORING TRADES
# LOCKOUT/TAGOUT
# SAFETY TOOLBOX TALK

## OVERVIEW

Lockout and tagout (lockout/tagout) (LO/TO) refer to safeguard methods employers and employees use to protect workers from hazardous machinery energy releases.

LO/TO are safety practices or procedures to disable machinery or equipment from being energized or activated to prevent unaware employees and the public from harming themselves or others.

## LEARN AND APPLY THE FOLLOWING

Any trade must deal with equipment or machinery that is potentially dangerous, especially shut-down equipment. Many accidents happen when a worker turns on a machine that others are repairing.

- LO/TO procedures are one way to ensure these types of accidents do not happen by ensuring power cannot reach the machinery while workers are near it or repairing it.
- LO/TO methods are only effective if workers are intentional and consistent with LO/TO methods. Simply turning off a machine is not an acceptable practice.

**Lockout**: LO means a lock or other device is placed that prevents the release of energy.

- LO examples are electric circuit breakers, line valves, disconnect switches, or blocks.

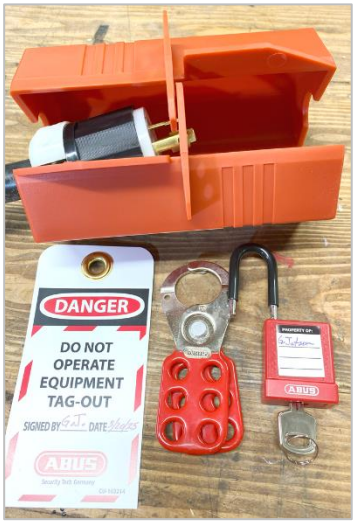
**Tagout**: TO means attaching a tag on the shutoff device or switch that warns other employees and the public not to touch or start up the equipment.

- TO must be used in addition to LO to maximize effectiveness unless LO of the equipment is not possible.

**Training**: The effectiveness of lockout or tagout is entirely up to the employee.

- Ask to see and become familiar with your company's LO/TO procedures for the equipment you will work near or with.
- Make sure you are adequately trained in LO/TO procedures.

**Figure 1 LO/TO Devices**




### Performing LO/TO Procedures

Walls, ceilings, and flooring workers shall learn the following LO/TO safety steps and consistently implement these practices at your worksite. Learn the LO/TO procedures for heavy equipment, circuit breakers, or other portable equipment.

1. First, notify all affected employees that maintenance work is about to be done, identify for them the work area, and state that LO/TO procedures are taking place.
2. Prepare the equipment to be powered off. Shut down the equipment or machinery.
3. Isolate the machine or equipment from its energy sources.
4. Verify that stored energy sources are isolated from all machinery and equipment.
5. Apply LO locks to prevent energy flow from being reactivated and reaching machinery or equipment.
   Apply TO tags to notify workers machinery or equipment is de-energized and locked out.
6. Apply lockout and tagout devices to all shut-down and isolated energy sources.
7. Conduct maintenance work.
8. After completing maintenance, remove all LO/TO devices as you bring all equipment back online.

| **Meeting Date:**<br>**Supervisor:**<br>**Employee Name:** |
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## DISCUSSION QUESTIONS

1. What are Finishes and Flooring lockout and tagout safety devices?
2. How do lockout and tagout safety practices or procedures improve safety on site?
3. Are there General Contractor or Building Owner specific rules that apply to Finishes and Flooring Work that are above OSHA Lockout/Tagout standards?