Safety Steps In Construction Projects

Welcome to the WHEA

Oct 2019 Lunch & Learn

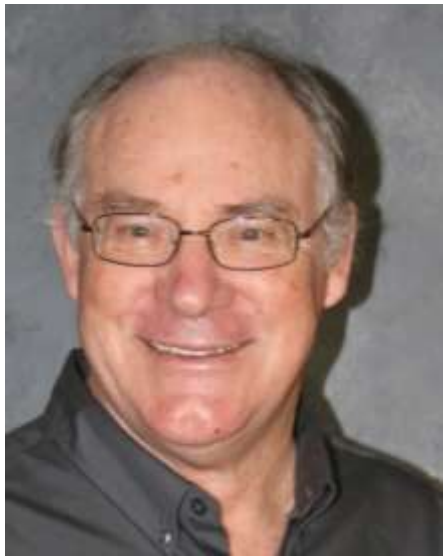
Lauzon Life Safety Consulting

Healthcare Survey Protection

Your Protective Shield in the Code War

Presenter

Bill Lauzon



2006-2011

DHS-DQA

2011-present

Lauzon Life Safety Consulting

1973-2006

"Facility Engineer"

Tomah – Fargo- Madison
Kenosha - Racine

CMS
CENTERS for MEDICARE & MEDICAID SERVICES
Liason

Healthcare Survey Protection
Your Protective Shield in the Code War

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AGENDA

1. Big Safety Picture
2. Work Phasing
3. Life Safety Assessment
4. ILSM
5. Infection Assessment
6. Barriers & Controls

Why is Construction Safety Important?

Safety Issues during construction can lead to:

- Patient Safety Risks
- Contingent Accredidation (One step above a denial!)
- CMS Inspection
- OSHA Investigation
- Uncorrected LSC deficiencies may be found much later & still require correction by owner

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GOAL During Construction:

"Keep People Safe"

Comply With

- NFPA 241
- Joint Commission
- OSHA
- AHJ Inspections

GOAL During Construction:

"Keep People Safe"

- All Phases of Work

GOAL During Construction:

"Keep People Safe"

- Patients, Healthcare staff
- Contractors
- Public

GOAL During Construction:

"Keep People Safe"

- Physical Harm
- Infections/Disease

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Contractor Phasing

Before the Contractor even gets the job, he's figuring out the sequence of work

so he can have the competitive edge by getting the job done faster…

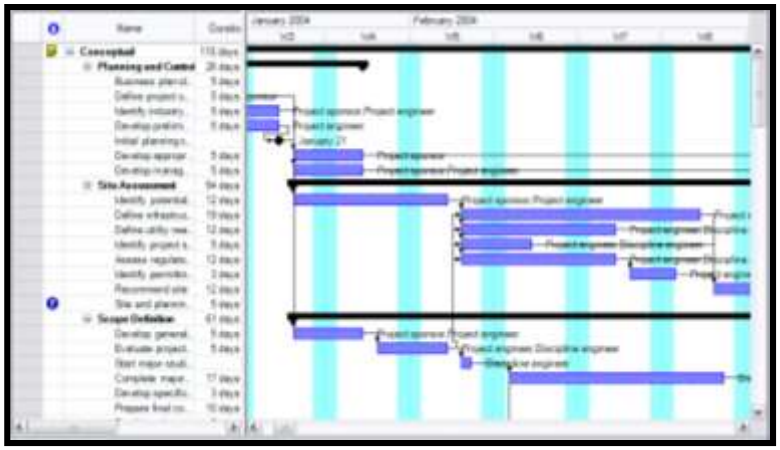
because **Faster means Money**

Phasing Goals

The goal of Contractor Work Phasing process is to accomplish work as efficiently as possible to maximize contractor profit

The phases of work are largely determined by the

1. Sequence of contractor work &
2. Access to facility space to work



Phasing Goals

The goal of Contractor Work Phasing process is to accomplish work as efficiently as possible to maximize contractor profit

HOWEVER

In an occupied health care occupancy the work schedule

MUST

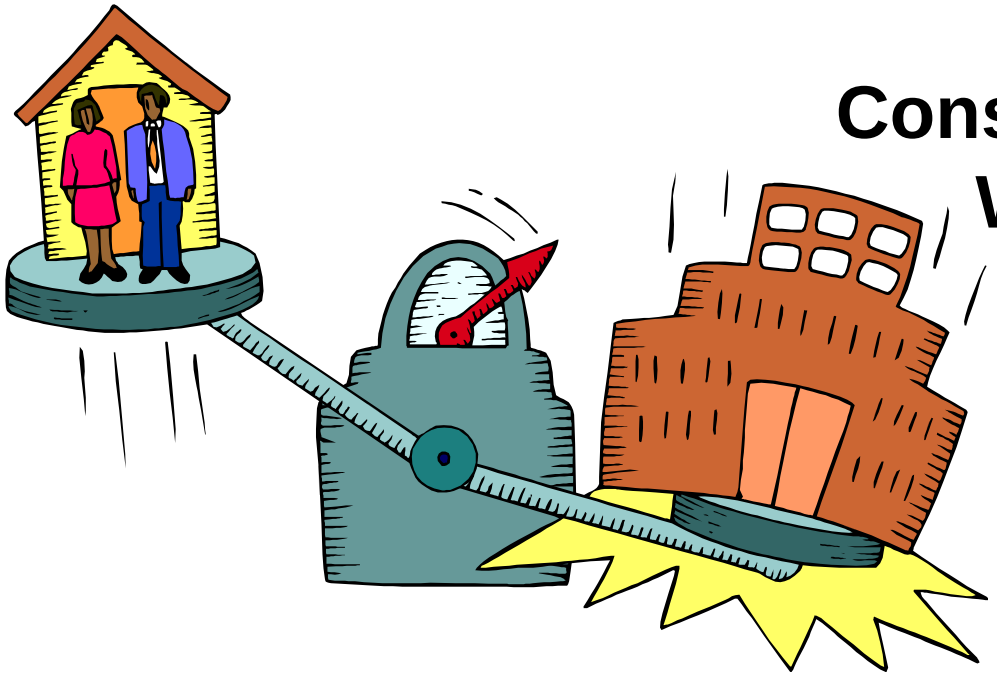
Consider the health & welfare of patients, staff & the public

Consider the Occupants

The critical path of the contractor MUST be amended to consider the

- **Operational needs** of the facility and
- **Safety** of the occupants

Caregiver Work & Patient Safety



Construction Work

When May Work Need to be Phased?

IF….

1. Construction will take place in any occupied space (need to relocate function, unless totally shut-down)

2. Construction will take place adjacent to high risk areas (need to consider dust, noise, vibration)

3. Requested by any dept manager or infection prevention

4. Construction will impact any exit from an occupied area or access to ER (need ILSM & potential phasing to work-around)

5. AHJ PR letter requests a phasing plan

Phasing is Determined by a TEAM

- **Facility Construction Manager**
- **Facility Safety/Security**
- **Facility Environmental Service**
- **Facility Infection Control**
- **Facility Mgr in Depts above/below/adjacent to work**
- **General Contractor**
- **Architect**

The evaluation team must anticipate if there is an infringement during any phase of the project on:

- **Any operational need,**
- **Any life safety code, or**
- **Any infection control principle**

When Should Phasing be Planned?

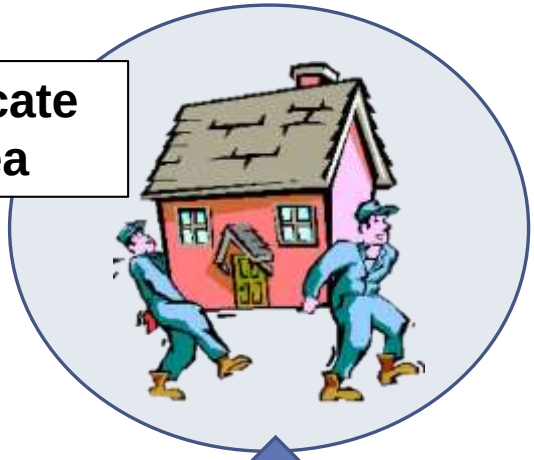
Option A – Prior to Bidding (with the Arch)

Option B – Pre-Construction Mtg (with the GC)

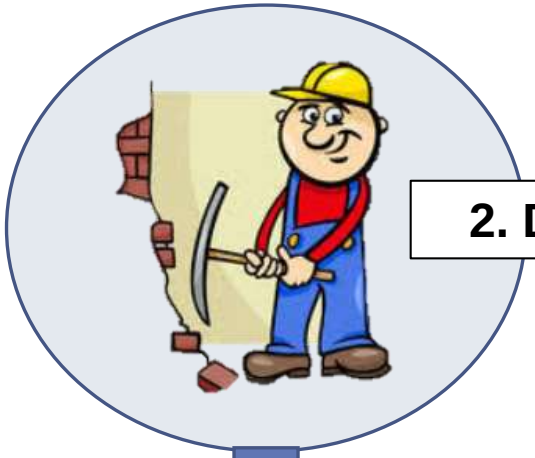
Option C – Never (let the GC “wing-it”)

Phasing affects the Construction Cycle

1. Vacate Area



2. Demo



3. Construct

4. Move-In

If Multiple Phases

Phase Planning is …

1. Vacate Area

A. The Art of Finding Acceptible Homes for Operations in the Construction Area

2. Demo

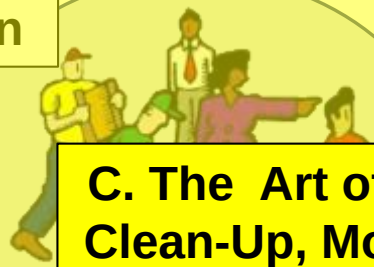
B. The Art of Keeping Constr Work from Interferring with Health Care Work

3. Construct

C. The Art of Quick Clean-Up, Moving & Keeping Things SAFE

If Multiple Phases

4. Move-In



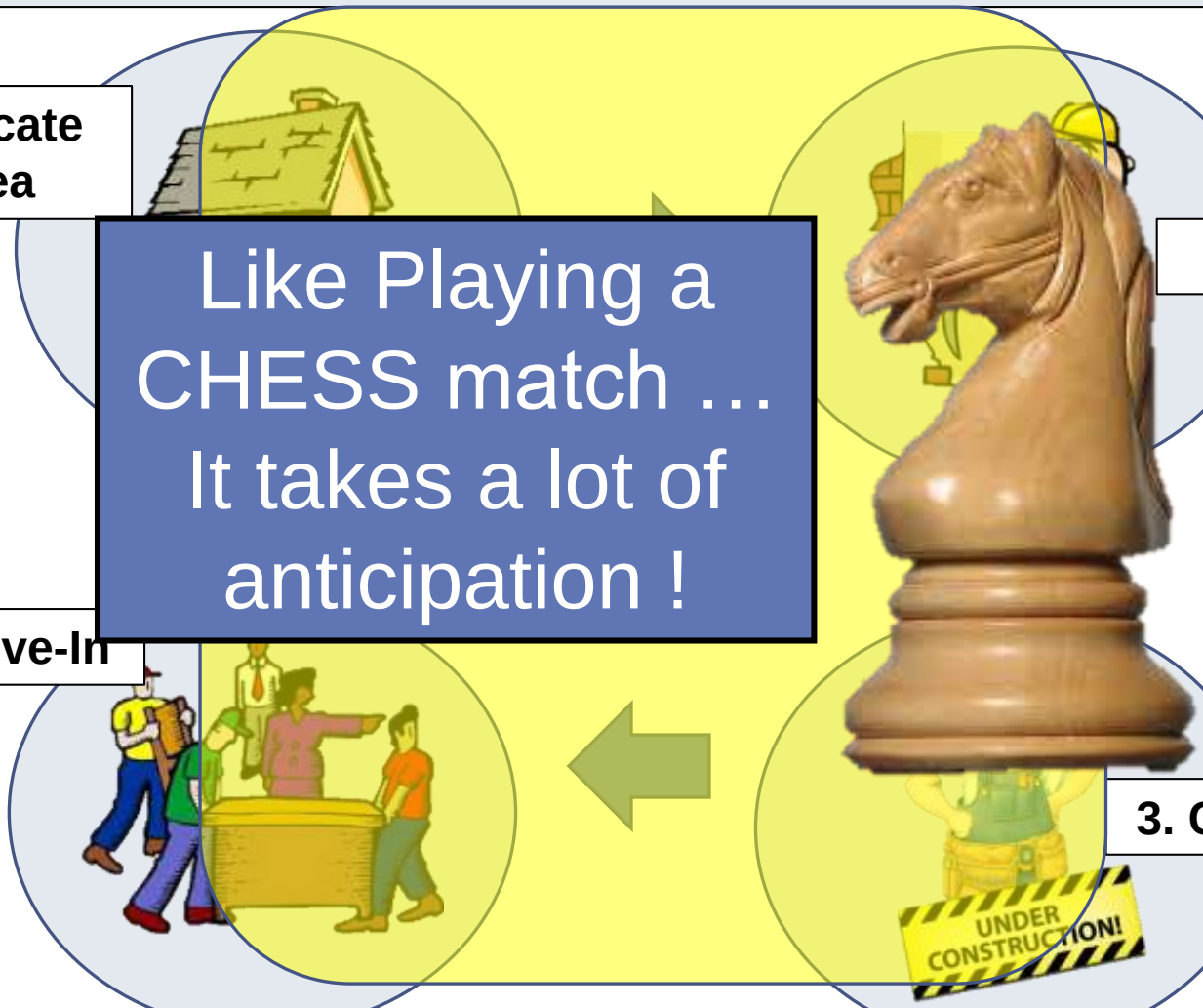
Phase Planning is …

1. Vacate Area

2. Demo

3. Construct

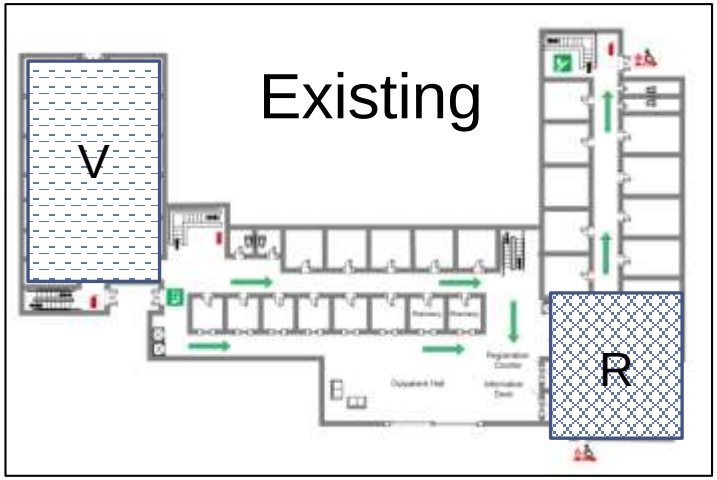
4. Move-In



Like Playing a CHESS match … It takes a lot of anticipation !

How to: Phase Planning

1. START with your existing plans



2. LAY the new plans next to them

3. Look at what can be vacated & what is being relocated

4. Factor-in temp relocations

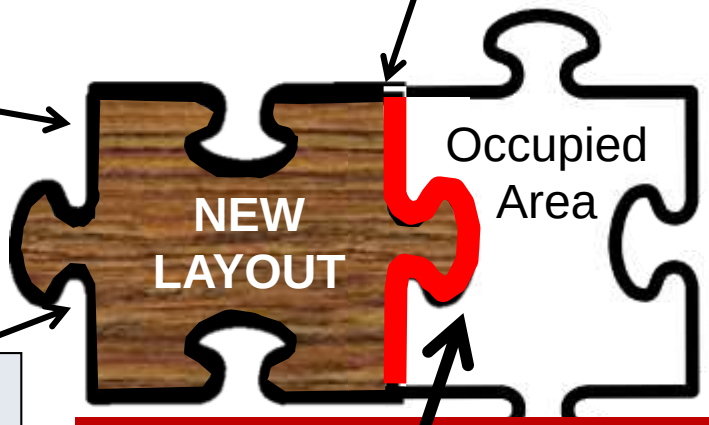
5. Figure out a sequence

How to: Phase Planning

START with your existing plans

1. Imagine the vacated space being replaced with the new layout

2. Place a construction barrier to separate "Existing" & "New"



Hint: In each phase, place a "cutout" of the new layout over the existing space that is vacated … (reflects bldg layout at end of the phase)

3. Eval the IMPACT of the constr work on the **occupied** areas

- Dept Operations
- Life safety
- Infection
- Contractor Operations
- Noise
- Vibration
- Dust

4. Adjust Phasing Plan as Needed

How to: Phase Planning

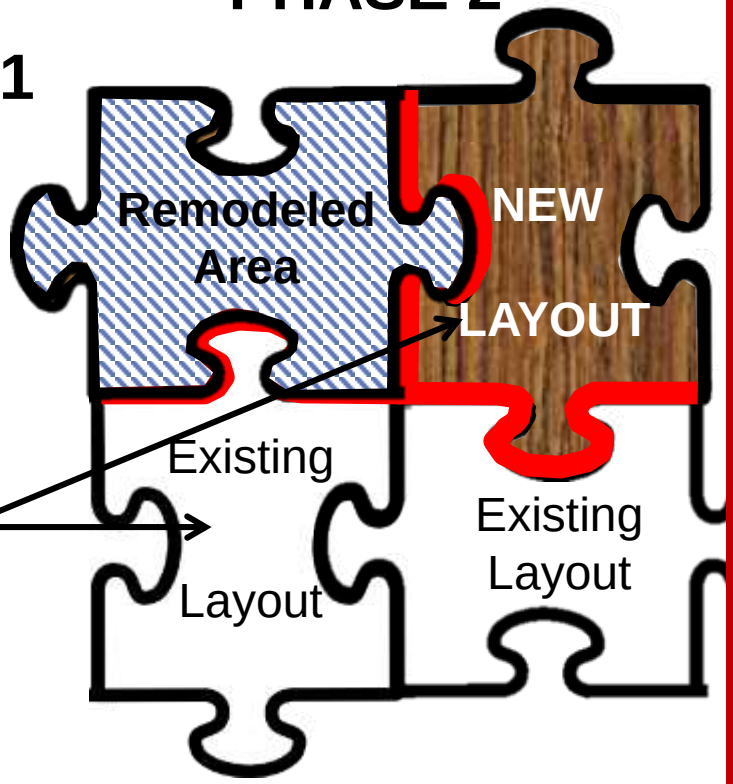
Can become complicated with major remodeling (multiple phases)

PHASE 1

3. Eval the impact of the constr work on the MULTIPLE existing areas
   - Dept Operations
   - Life safety
   - Infection
   - Contractor Operations

Adjust Phasing Work as Needed

PHASE 2



Eval the impact of the constr work on the MULTIPLE existing & new areas
   - Dept Operations
   - Life safety
   - Infection
   - Contractor Operations

Adjust Phasing Work as Needed

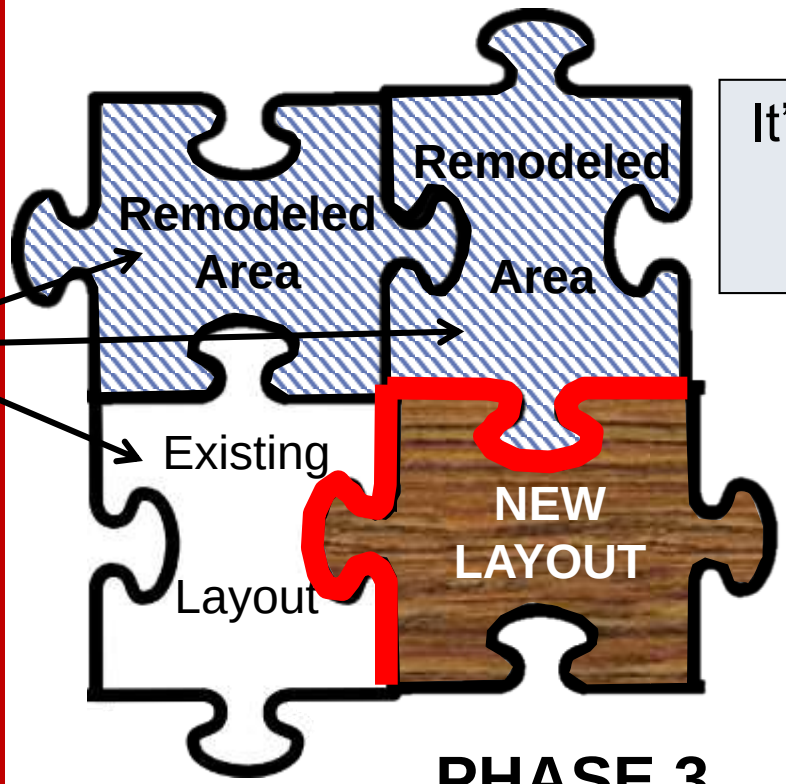
How to: Phase Planning

Can become complicated with major remodeling (multiple phases)

Eval the impact of the constr work on the existing & MULTIPLE remodeled areas

- Dept Operations
- Life safety
- Infection
- Contractor Operations

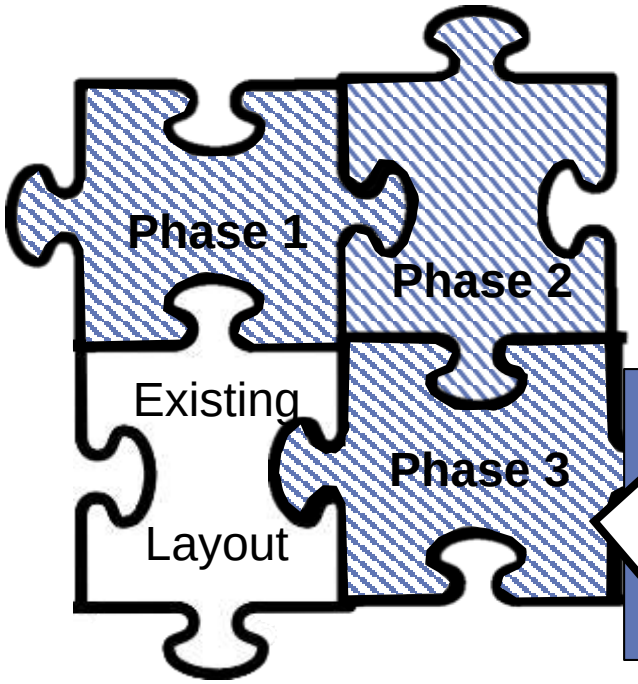
Adjust Phasing Work as Needed



It's a CHESS match, Think 10 moves ahead!

Phasing Goals

A goal of the Work Phasing process is to
Implement safeguards to
minimize the disruption and hazards to occupants



This **Each Phase** must be evaluated separately for **Safety issues**

In this example: 3 sets of Risk Assessments & ILSM

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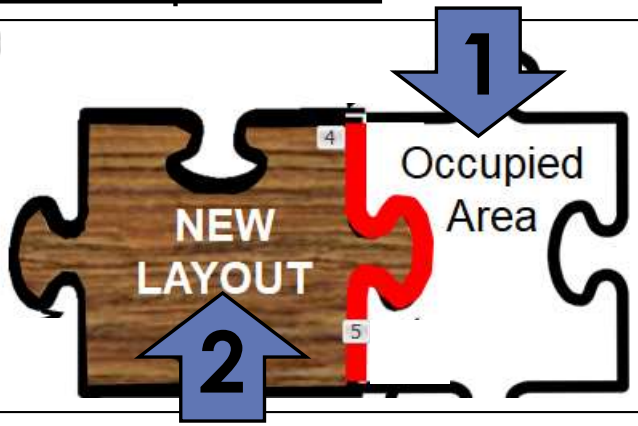
LIFE SAFETY RISK ASSESSMENT

STEPS

1. **Evaluate life safety risks**
   - **OUTside** Site In the Occupied Area &
   - Develop ILSM for each life safety risk



2. **Evaluate life safety risks**
   - **INside** the Constr Site &
   - Develop ILSM for each life safety risk

Life Safety Assessment

Typical Deficiencies

EGRESS RESTRICTION
- Stairwell use
- Corridor width
- Exit Discharge
- Lack of 2 remote exits

RATED WALLS
- Opening in floor
- Wall penetration

INFECTION PREVENTION
- Dust/mold transmit to adjacent sensitive areas

PROTECTION OUTAGE
- Fire alarm impairment
- Sprinkler impairment

NEARBY HEALTH AREAS
- Restrict access to ER
- Nearby radiographic work

Step 1

Evaluate Life Safety Issues **OUT-SIDE** the project limits

ANTICIPATE – consider what might be adversely affected by construction work

Primarily Aimed at **Occupant Safety**

Methodically, generate an **ILSM** for each hazard or deficiency

Life Safety Assessment

Typical Deficiencies

INFECTION PREVENTION
- Dust/mold generation
- Dust/mold transmit to adjacent sensitive areas

SITE EGRESS
- Obstructions
- No exit signage
- Dim lighting

COMBUSTIBLES
- Construction debris
- Flammable liquids

HOT WORK
- Weak welding protections
- Lack of fire watch

Step 2

Evaluate Life Safety Issues **IN-SIDE** the project limits

ANTICIPATE – consider what might be adversely affected by construction work

Aimed at both
Contractor & Occupant Safety

Methodically, generate an **ILSM** for each hazard or deficiency

Example Form for LS Assessment

LIFE SAFETY RISK ASSESSMENT and ILSM EVALUATION

Project: _____

Facility _____

Date: _____

Examples of Life Safety Issues	Potential ILSM* to Take (circle those to implement)	Potential ILSM* to Take (circle those to implement)
CONSTRUCTION ISSUES	**ILSM* IN ALL AREAS**	**ILSM* in PATIENT CARE AREAS**
Any	1. Perform written Life Safety Risk Assessment (LSRA) for air quality, infection control, utility requirements, noise, vibration, and other hazards that affect care, treatment, and services (TJC: EC.02.06.05-EP 2) 2. Actions taken per LSRA (TJC: EC.02.06.05-EP 3) 3. Temporary partitions separate constr from occup areas. Made smoke tight & made of mtls that wil not contribute to spread of fire (TJC: LS.01.02.01-EP 7) 4. Inspect egress paths daily 5. Inform property & liability insurance carrier of scope of construction project 6. Contractor Training on Facility Safety & Work Expectations	1. Perform written Infection Control Risk Assesment 2. Implement storage and debris removal practices that reduce the flammable and combustible fire load 3. Conduct one additional fire drill per shift per quarter in affected area (TJC: LS.01.02.01-EP 11) 4. On each shift haz surveilance of project area when no workers (TJC: LS.01.02.01-EP 8) 5. Daily inspect of unoccupied areas located above or adjacent to project area (TJC: LS.01.02.01-EP 8) 6. Increase surveillance of buildings & equipment with special attention to construction areas, storage, and FD Access (TJC: LS.01.02.01-EP 8) 7. Train staff on constr hazards (LS.01.02.01-EP 13)
HC a.	1. Remove nearby combustibles 2. Added fire extinguisher nearby 3. Fire watch during work & for 1 hr afterward 4. Surveilance rounds after work completed	(follow base ILSM)
SITE EGRES a. Constru gress path obstructed	1. Provide alternative path of egress 2. Signage of egress at both new and restricted path 3. Contractor notification of restriction & alternative path 4. Daily inspection of path of egress 5. Alternative paths of egress kept clear at all times	(follow base ILSM)
ER ACCESS a. Construction Site impacts interior or exterior access to emergency dept	1. Provide alternative path of egress 2. Signage of egress at both new and restricted path 3. Public notification of restriction & alternative path 4. Daily inspection of alternative path of egress 5. Alternative paths of egress kept clear at all times	(follow base ILSM)
INFECTION PREVENTION a. Dust/mold generation b. Dust/mold in/adjacent to immino-suppressed area	1. Perform ICRA (TJC: EC.02.01.01-EP 1) 2. Tempory smoke-tight partitions made of non- or limited-combustible materials	1. Restricted entrance pattern 2. Debris transportation safeguards 3. HEPA filtration
LIGHTING a. Lights out in egress path	1. Provide additional battery lights	(follow base ILSM)

Typical Risks

Life Safety Assessment

AFTER each Risk Assessment Step:

Generate a means ….

To:

- **Eliminate** the Life Safety Issue, or
- Provide **Alternative** Safeguards

Common sense solutions that provides adequate safe guards against the deficiencies, considering the

- actual hazard to occupants and
- the duration of deficiency

These are Interim Life Safety Measures

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Interim Life Safety Measures

Methods to manage Fire Risks

DIFFERENCES

between TJC & CMS

On construction

The Joint Commission

CMS
CENTERS for MEDICARE & MEDICAID SERVICES

ILSM

NFPA®

NFPA 241

NFPA 241
Standard for Safeguarding Construction, Alteration, and Demolition Operations

Contains the **LEGAL** requirements for construction

Facility should have a **CONSTRUCTION SAFETY POLICY**
(call it a "Construction Fire Safety Program")

Chapter 7 Fire Protection

7.1 Fire Safety Program. An overall construction or demolition fire safety program shall be developed. Essential items to be emphasized include the following:

(1) Good housekeeping
(2) On-site security
(3) Installation of new fire protection systems as construction progresses
(4) Preservation of existing systems during demolition
(5) Organization and training of an on-site fire brigade
(6) Development of a prefire plan with the local fire department
(7) Rapid communication
(8) Consideration of special hazards resulting from previous occupancies
(9) Protection of existing structures and equipment from exposure fires resulting from construction, alteration, and demolition operations

NFPA 241
Standard for Safeguarding Construction, Alteration, and Demolition Operations

8.6.2 Temporary Separation Walls.

8.6.2.1 Protection shall be provided to separate an occupied portion of the structure from a portion of the structure undergoing alteration, construction, or demolition operations when such operations are considered as having a higher level of hazard than the occupied portion of the building.

8.6.2.2 Walls shall have at least a 1-hour fire resistance rating.

8.6.2.3 Opening protectives shall have at least a 45-minute fire protection rating.

At AHJ's discretion → **8.6.2.4*** Nonrated walls and opening protectives shall be permitted when an approved automatic sprinkler system is installed.

8.7.3 Sprinkler Protection.

i.e., get sprinklers operational ASAP → **8.7.3.1*** If automatic sprinkler protection is to be provided, the installation shall be placed in service as soon as practicable.

NFPA 241
Standard for Safeguarding Construction, Alteration, and Demolition Operations

NO waste Accummulation →

5.4 Waste Disposal.

5.4.1* Accumulations of combustible waste material, dust, and debris shall be removed from the structure and its immediate vicinity at the end of each work shift or more frequently as necessary for safe operations.

NO Storage Without Sprinklers →

8.3 Construction Material and Equipment Storage.

8.3.1 Temporary storage of equipment to be installed, combustible construction materials, or combustible packing materials shall not be permitted in unprotected structures under construction or alteration unless authorized by the authority having jurisdiction.

8.3.2* Storage shall not be permitted in protected structures until protection is in service.

NFPA 241
Standard for Safeguarding Construction, Alteration, and Demolition Operations

Another Code !→

5.1 Hot Work.

5.1.1* Responsibility for hot work operations and fire prevention precautions, including permits and fire watches, shall be in accordance with NFPA 51B, *Standard for Fire Prevention During Welding, Cutting, and Other Hot Work*, except as modified in Chapter 9.

"Dedicated" →

5.1.3 Fire Watch.

5.1.3.1 Fire watches shall be assigned no other duties.

5.1.3.2 A fire watch shall be posted for the duration of the work and for 60 minutes thereafter for torch-applied roofing operations *(see 9.3.9)*.

+ Many more Requirements

Now, let's look at the way The Joint Commission handles ILSM

TJC: Interim Life Safety Measures

- **Started in 1990's** (along with PFIs)
- **Few changes** (but grew from 11 to 15)
- **Contained in LS.01.02.01**
- **NOT adopted by CMS/DHS**

Caution: TJC frequently changes LS/EP #

Interim Life Safety Measures: used when the LSC is not technically met

COMPENSATED PROTECTION: basic principles of the Life Safety Code met via alternative means:

- staff knowledge,
- training, and
- alternative systems

(Essentially, a temporary “variance”)

When do you need an "ILSM" ?

Whenever a defined component of the Life Safety Code is not met as the result of:

1. Identified deficiencies
2. Unplanned incidents

3. Construction/renovation activities
4. Maintenance activities – Certain PM's

CMS PRESPECTIVE:

- Must Fix Deficiency ASAP
- So, Little Need for ILSM
- CMS approves variances

Joint Commission's Interim Life Safey Measures

EP 1 ILSM policy identifying when and to what extent ILSM implemented
EP 2 Alarms impaired ≥4 hrs in 24 hrs, or sprinklers impaired ≥ 10 hrs in 24 hrs in an occupied building – Fire Watch/Fire Dept notification
EP 3 Signs for alternative exits posted
EP 4 Daily inspection of egress routes
EP 5 Temporary, but equivalent sys while sys is impaired
EP 6 Additional firefighting equipment provided
EP 7 Smoke tight non-combustible temporary barriers
EP 8 Increased surveillance implemented
EP 9 Storage and debris removal
EP 10 Additional training on firefighting equipment
EP 11 Additional fire drill per shift per quarter
EP 12 Temp sys tested and inspected monthly
EP 13 Train on deficiencies, construction hazards, temp measures
EP 14 Train on impaired structural or impaired fire safety features
EP 15 Other ILSM's

All are NOT needed on every project

ILSMs Required for **All** Projects

EP 1 ILSM policy identifying when and to what extent ILSM implemented
EP 2 Alarms impaired ≥4 hrs in 24 hrs, or sprinklers impaired ≥ 10 hrs in 24 hrs in an occupied building – Fire Watch/Fire Dept notification
EP 3 Signs for alternative exits posted
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Optional for SELECTIVE Deficiencies

EP 1 ILSM policy identifying when and to what extent ILSM implemented
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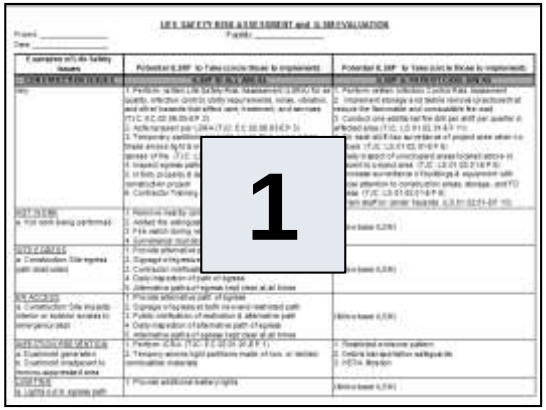
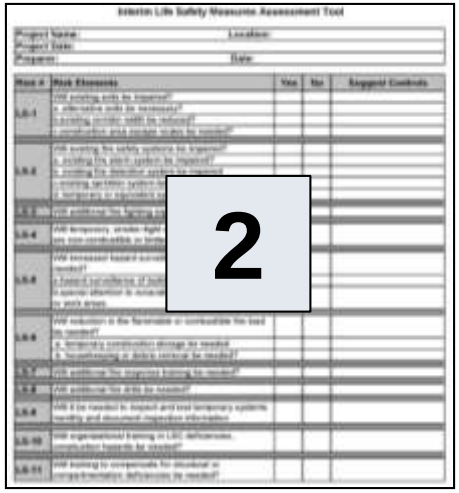
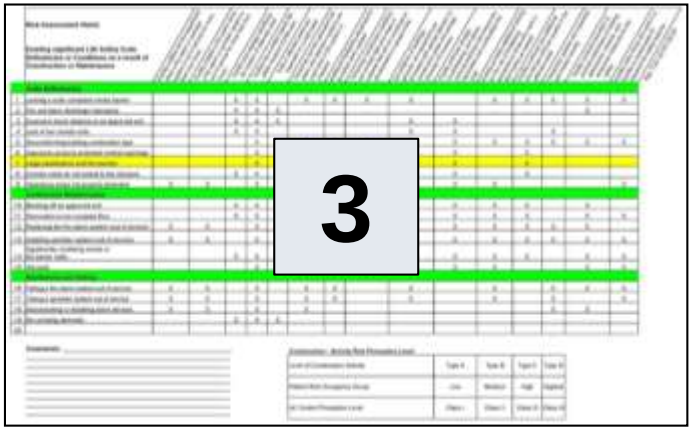
EP 15 Other ILSM's

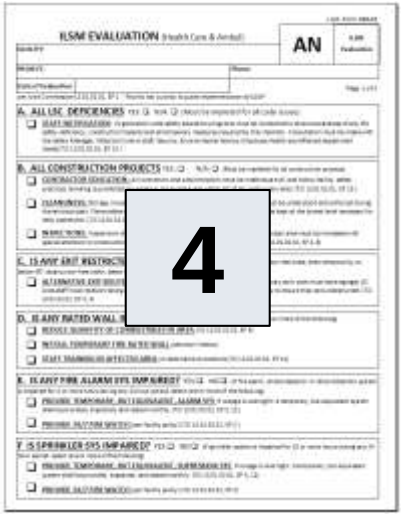
EP 1 requires a facility policy to define when these ILSM are used

4 Examples of ILSM Evaluation Tools









Example #1: ILSM Evaluation Tool

LIFE SAFETY RISK ASSESSMENT and ILSM EVALUATION

Project: _____ Facility _____

Date: _____

Examples of Life Safety Issues	Potential ILSM* to Take (circle those to implement)	Potential ILSM* to Take (circle those to implement)
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Any Risk	1. Perform written Life Safety Risk Assessment (LSRA) for air quality, infection control, utility requirements, noise, vibration, and other hazards that affect care, treatment, and services (TJC: EC.02.06.05-EP 2) 2. Actions taken per LSRA (TJC: EC.02.06.05-EP 2) 3. Tempo[illegible]ry pa[illegible] Ma[illegible]tigh[illegible] spr[illegible] (T[illegible] 4. Inspect egress[illegible] 5. Inform proper[illegible] construction project 6. Contractor Training on Facility Safety & Work Expectations	1. Perform written Infection Control Risk Assesment 2. Implement storage and debris removal practices that reduce the flammable and combustible fire load 3. Conduct one additional fire drill per shift per quarter in affected area (TJC: LS.01.02.01-EP 11) [illegible] shift haz surveilance of project area when no [illegible]TJC: LS.01.02.01-EP 8) [illegible]spect of unoccupied areas located above or [illegible] project area (TJC: LS.01.02.01-EP 8) [illegible] surveillance of buildings & equipment with special attention to construction areas, storage, and FD Access (TJC: LS.01.02.01-EP 8) 7. Train staff on constr hazards (LS.01.02.01-EP 13)
HOT WORK a. Hot work being performed	1. Remove nearby combustibles 2. Added fire extinguisher nearby 3. Fire watch during work & for 1 hr afterward 4. Surveilance rounds after work completed	(follow base ILSM)
SITE EGRESS a. Construction Site egress path obstructed	1. Provide alternative path of egress 2. Signage of egress at both new and restricted path 3. Contractor notification of restriction & alternative path 4. Daily inspection of path of egress 5. Alternative paths of egress kept clear at all times	(follow base ILSM)
ER ACCESS a. Construction Site impacts interior or exterior access to emergency dept	1. Provide alternative path of egress 2. Signage of egress at both new and restricted path 3. Public notification of restriction & alternative path 4. Daily inspection of alternative path of egress 5. Alternative paths of egress kept clear at all times	(follow base ILSM)
INFECTION PREVENTION a. Dust/mold generation b. Dust/mold in/adjacent to immino-suppressed area	1. Perform ICRA (TJC: EC.02.01.01-EP 1) 2. Tempory smoke-tight partitions made of non- or limited-combustible materials	1. Restricted entrance pattern 2. Debris transportation safeguards 3. HEPA filtration
LIGHTING a. Lights out in egress path	1. Provide additional battery lights	(follow base ILSM)

Interim Life Safety Management Steps

Example #1

Interim Life Safety

ILSMs Required for ALL Deficiencies

Risk Assessment Issue:	ILSM Options to Consider
ALL Deficiencies & Construction Projects	1. Perform written Life Safety Risk Assessment for fire safety elements and take all actions required by the LSRA 2. Inspect egress paths daily 3. Inform property & liability insurance carriers of the scope of project 4. Contractor Training on facility safety and work expectations. 5. Implement storage and debris removal practices that reduce the flammable and combustible fire load. 6. Train staff on construction hazardous.

Optional ILSMs to Consider for SELECTIVE Deficiencies

Risk Assessment Issue:	ILSM Options to Consider
EGRESS RESTRICTION • Stairwell use • Corridor width • Exit Discharge • Lack of 2 remote exits • Dim Lighting	1. Provide an alternative egress path 2. Sign both the new & restricted egress path; train both staff & contractors 3. Daily Inspection of the paths 4. Keep alternative path clear at all times 5. Added battery lights
RATE WALLS • Wall missing • Wall penetration	1. Temporary partitions must separate construction area from occuppied areas; are smoke tight; made of materials that will not contribute to spread of fire 2. Provide an alternative enclosure

Example #1

Interim Life Safety

Optional ILSMs to Consider for SELECTIVE Deficiencies

Risk Assessment Issue:	ILSM Options to Consider
CONSTRUCTION TYPE • Missing fire proofing • Inappropriate Constr type	1. Remove non-essential combustibles 2. Add smoke detectors
INFECTION PREVENTION • Dust/mold generation • Dust/mold transmit to adjacent sensitive areas	1. Perform an ICRA (EC.02.01.01-EP1) 2. Provide a temporary smoke-tight partitions made of non/limited combustible materials
VERTICAL OPENING • Opening in floor	1. Install temporary patch on opening
COMBUSTIBLES • Construction debris • Flammable liquids	1. Remove nearly combustibles 2. Provide added fire extinguisher nearby

Optional ILSMs to Consider for SELECTIVE Deficiencies

Risk Assessment Issue:	ILSM Options to Consider
HOT WORK • Weak welding protections • Lack of fire watch	1. Remove nearly combustibles 2. Provide added fire extinguisher nearby 3. Fire watch during work & 1 hr afterward 4. Surveillance rounds after work completed
NEARBY HEALTH AREAS • Restrict access to ER • Nearly radiographic work	1. Provide alternative access route 2. Signage at both alternative & old route 3. Public notification at both routes 4. Daily inspection of alternative route 5. Alternative route kept clear at all time

Example #2: ILSM Evaluation Tool

← INTERIM LIFE SAFETY MEASURES →

Interim Life Safety Measures Assessment Tool

Project Name:	**Location:**
Project Date:	
Preparer:	**Date:**

Risk #	Risk Elements	Yes	No	Suggest Controls
LS-1	Will existing exits be impaired?			
	a. alternative exits be necessary?			
	b.existing corridor width be reduced?			
	c.construction area escape routes be needed?			
LS-2	Will existing fire safety systems be impaired?			
	a. existing fire alarm system be impaired?			
	b. existing fire detection system be impaired			
	c.existing sprinkler system be impaired?			
	d. temporary or equivalent systems be needed?			
LS-3	Will additional fire fighting equipment be needed?			
LS-4	Will temporary, smoke–tight construction partitions that are non-combustible or limited-combustible be needed?			
LS-5	Will increased hazard surveillance of patient buildings be needed?			
	a.hazard surveillance of buildings, grounds or equipment			
	b.special attention to excavations, construction storage or work areas.			
LS-6	Will reduction in the flammable or combustible fire load be needed?			
	a. temporary construction storage be needed			
	b. housekeeping or debris removal be needed?			
LS-7	Will additional fire response training be needed?			
LS-8	Will additional fire drills be needed?			
LS-9	Will it be needed to inspect and test temporary systems monthly and document inspection information			
LS-10	Will organizational training in LSC deficiencies, construction hazards be needed?			
LS-11	Will training to compensate for structural or compartmentation deficiencies be needed?			

Missing criteria for when to implement

Example #3: ILSM Evaluation Tool

Risk Assessment Matrix

Existing significant Life Safety Code Deficiencies or Conditions as a result of Construction or Maintenance

← INTERIM LIFE SAFETY MEASURES →

		Facility notifies the fire department when a fire alarm or sprinkler system is out of service for more than four hours	Facility installs a fire watch when a fire alarm or sprinkler system is out of service for more than four hours	Facility post signs at the location	Facility has a safety measure	Exits in all	Temporary	Additional fire is provided	Temporary	Surveillance	Facility	Facility provides	Facility conducts	Facility trains those who work in a	Per TJC LS.01.02.01
	Code Deficiencies														
1	Lacking a code compliant smoke barrier			X	X		X	X	X	X		X	X	X	X
2	Fire exit stairs discharge improperly			X	X	X								X	
3	Excessive travel distance to an approved exit			X	X	X				X	X				
4	Lack of two remote exits			X	X					X	X				
5	Nonconforming building construction type				X		X	X	X	X	X	X	X	X	X
6	Imporperly property protected vertical openings				X		X		X	X	X		X		
7	Large penetrations and fire barriers				X					X	X		X		
8	Corridor walls do not extend to the structure			X	X		X		X	X	X		X		
9	Hazardous areas not properly protected	X	X		X			X		X	X	X			X
	Construction Related Issues														
10	Blocking off an approved exit			X	X	X	X			X	X	X	X		X
11	Renovation on an occupied floor			X	X	X	X	X	X	X	X	X	X	X	X
12	Replacing the fire alarm system (out of service)	X	X		X		X			X	X	X	X	X	X
13	Installing sprinkler system (out of service)	X	X		X		X	X		X	X	X	X	X	X
14	Significantly modifying smoke or fire barrier walls			X	X	X	X	X	X	X	X	X	X	X	X
15	Hot work				X		X	X	X	X	X	X		X	X
	Maintenance and Testing														
16	Taking a fire alarm system out of service	X	X		X		X	X		X		X		X	X
17	Taking a sprinkler system out of service	X	X		X		X	X		X		X		X	X
18	Disconnecting or disabling alarm devices	X	X		X		X							X	
19	Re-Lamping stairwells			X	X	X									
20															

Comments: _____

Construction : Activity Risk Precaution Level

Level of Construction Activity	Type A	Type B	Type C	Type D
Patient Risk Occupancy Group	Low	Medium	High	Highest
Inf. Control Precaution Level	Class I	Class II	Class III	Class IV

Example #3

Code Deficiencies

Risk Assessment Matrix

Existing significant Life Safety Code Deficiencies or Conditions as a result of Construction or Maintenance

		Facility notifies the fire department when a fire alarm or sprinkler system is out of service for more than four hours	Facility initiates a fire watch when a fire alarm or sprinkler system is out of service for more than four hours	Facility post signage identifying the location of alternate exits	Facility has a written interim life safety measure (ILSM) plan	Exits in affected areas are inspected on a daily basis	Temporary power and detection systems are tested when a fire system is impaired	Additional firefighting equipment is provided when needed	Temporary construction partitions are smoke tight and made of materials that will not contribute to the development or spread of fire	Surveillance of buildings, grounds, and equipment are conducted with special attention to construction areas and storage areas (includes FD Access)	Facility enforces storage, housekeeping, and debris removal practices that reduce the available fuel and combustible fire load	Facility provides additional equipment to those who work in the use of firefighting equipment as needed	Facility conducts one additional drill per shift per quarter in the affected areas	Temporary systems are inspected and tested monthly	Facility conducts education to provide awareness of building scenarios, hazards, and temporary measures for fire safety	Facility trains those who work in a way to compensate for impaired life safety features	Other TJC LS.01.02.01
	Code Deficiencies																
1	Lacking a code compliant smoke barrier			X	X		X	X	X	X		X	X	X	X	X	
2	Fire exit stairs discharge improperly			X	X	X									X		
3	Excessive travel distance to an approved exit			X	X	X				X	X						
4	Lack of two remote exits			X	X					X	X			X			
5	Nonconforming building construction type				X		X	X	X	X	X	X	X	X	X	X	X
6	Imporperly properly protected vertical openings				X		X		X	X	X		X				
7	Large penetrations and fire barriers				X					X	X		X				
8	Corridor walls do not extend to the structure			X	X		X		X	X	X		X				
9	Hazardous areas not properly protected	X	X		X			X		X	X	X				X	
	Construction Related Issues																
10	Blocking off an approved exit			X	X	X	X			X	X	X	X		X		
11	Renovation on an occupied floor			X	X	X	X	X	X	X	X	X	X		X	X	
12	Replacing the fire alarm system (out of service)	X	X		X		X			X	X	X	X	X	X		
13	Installing sprinkler system (out of service)	X	X		X		X	X		X	X	X	X	X	X	X	
14	Significantly modifying smoke or fire barrier walls			X	X	X	X	X	X	X	X	X	X		X	X	
15	Hot work				X		X	X	X	X	X	X			X	X	
	Maintenance and Testing																
16	Taking a fire alarm system out of service	X	X		X		X	X		X		X		X	X	X	
17	Taking a sprinkler system out of service	X	X		X		X	X		X		X		X		X	
18	Disconnecting or disabling alarm devices	X	X		X		X							X	X		
19	Re-Lamping stairwells			X	X	X											
20																	

Comments: _____

Construction : Activity Risk Precaution Level

Level of Construction Activity	Type A	Type B	Type C	Type D
Patient Risk Occupancy Group	Low	Medium	High	Highest
Inf. Control Precaution Level	Class I	Class II	Class III	Class IV

Example #3

Construction Deficiencies

Risk Assessment Matrix Existing significant Life Safety Code Deficiencies or Conditions as a result of Construction or Maintenance	Facility notifies the fire department when a fire alarm or sprinkler system is out of service for more than four hours	Facility installs a fire watch when a fire alarm or sprinkler system is out of service for more than four hours	Facility post signage identifying the location of alternate exits	Facility has a written interim life safety measure (ILSM) plan	Exits in affected areas are inspected on a daily basis	Temporary put the equivalent fire alarm and detection systems are used when a fire system is impaired	Additional firefighting equipment is provided when needed	Temporary construction partitions are smoke-tight and made of material that will not contribute to development or spread of fire	Surveillance of buildings, grounds, and equipment are completed with special attention to construction areas and storage (includes FD Access)	Facility enforces storage, housekeeping, and debris removal practices that reduce the flammable and combustible fire load	Facility provides additional training on the use of firefighting equipment to those who work in the Facility as needed	Facility conducts one additional fire drill per shift per quarter in the affected areas	Temporary systems are inspected and tested monthly	Facility conducts education to promote awareness of building deficiencies, hazards, and temporary measures for fire safety	Facility trains those who work in a Facility to compensate for impaired fire safety features	Per TJC LS.01.02.01
Code Deficiencies															
1 Lacking a code compliant smoke barrier			X	X		X	X	X	X		X	X	X	X	X
2 Fire exit stairs discharge improperly			X	X	X									X	
3 Excessive travel distance to an approved exit			X	X	X				X	X					
4 Lack of two remote exits			X	X					X	X			X		
5 Nonconforming building construction type				X		X	X	X	X	X	X	X	X	X	X
6 Imporperly property protected vertical openings				X		X		X	X	X		X			
7 Large penetrations and fire barriers				X					X	X		X			
8 Corridor walls do not extend to the structure			X	X		X		X	X	X		X			
9 Hazardous areas not properly protected	X	X		X			X		X	X	X				X
Construction Related Issues															
10 Blocking off an approved exit			X	X	X	X			X	X	X	X		X	
11 Renovation on an occupied floor			X	X	X	X	X	X	X	X	X	X		X	X
12 Replacing the fire alarm system (out of service)	X	X		X		X			X	X	X	X	X	X	
13 Installing sprinkler system (out of service)	X	X		X		X	X		X	X	X	X	X	X	X
14 Significantly modifying smoke or fire barrier walls			X	X	X	X	X	X	X	X	X	X		X	X
15 Hot work				X		X	X	X	X	X	X			X	X
Maintenance and Testing															
16 Taking a fire alarm system out of service	X	X		X		X	X		X		X		X	X	X
17 Taking a sprinkler system out of service	X	X		X		X	X		X		X		X		X
18 Disconnecting or disabling alarm devices	X	X		X		X							X	X	
19 Re-Lamping stairwells			X	X	X										
20															

Comments: _____

Construction : Activity Risk Precaution Level

Level of Construction Activity	Type A	Type B	Type C	Type D
Patient Risk Occupancy Group	Low	Medium	High	Highest
Inf. Control Precaution Level	Class I	Class II	Class III	Class IV

Example #3

Maintenance Deficiencies

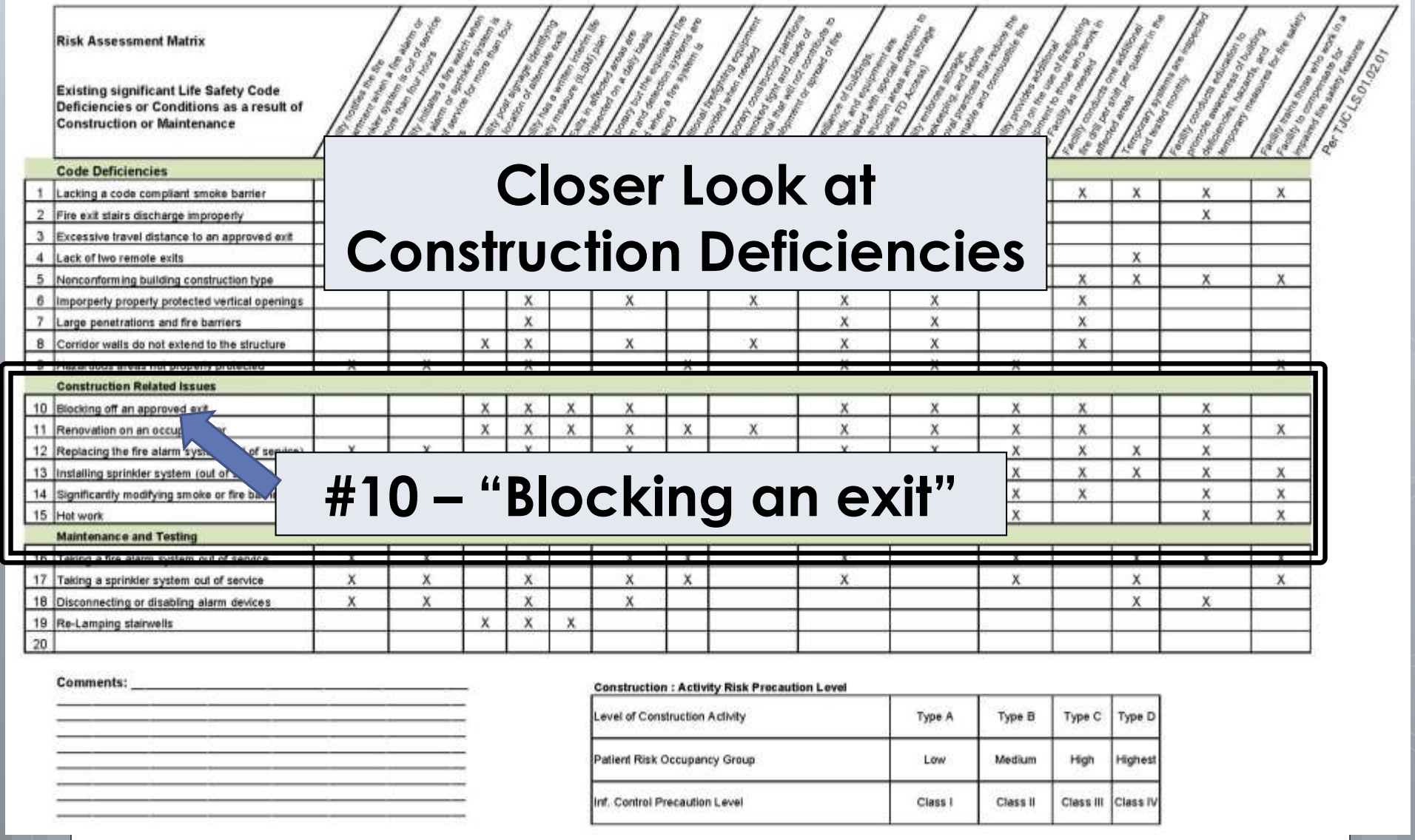
	Risk Assessment Matrix Existing significant Life Safety Code Deficiencies or Conditions as a result of Construction or Maintenance	Facility notifies the fire department when a fire alarm or sprinkler system is out of service for more than four hours	Facility installs a fire watch when a fire alarm or sprinkler system is out of service for more than four hours	Facility post signage identifying the location of alternate exits	Facility has a written interim life safety measure (ILSM) plan	Exits in affected areas are inspected on a daily basis	Temporary put the equivalent fire alarm and detection systems are used when a fire system is impaired	Additional firefighting equipment is provided when needed	Temporary construction partitions are smoke-tight and made of material that will not contribute to development or spread of fire	Surveillance of buildings, grounds, and equipment are completed with special attention to construction areas and storage (includes FD Access)	Facility enforces storage, housekeeping, and debris removal practices that reduce the flammable and combustible fire load	Facility provides additional training on the use of firefighting equipment to those who work in the Facility as needed	Facility conducts one additional fire drill per shift per quarter in the affected areas	Temporary systems are inspected and tested monthly	Facility conducts education to promote awareness of building deficiencies, hazards, and temporary measures for fire safety	Facility trains those who work in a Facility to compensate for impaired fire safety features	Per TJC LS.01.02.01
	Code Deficiencies																
1	Lacking a code compliant smoke barrier			X	X		X	X	X	X		X	X	X	X	X	
2	Fire exit stairs discharge improperly			X	X	X									X		
3	Excessive travel distance to an approved exit			X	X	X				X	X						
4	Lack of two remote exits			X	X					X	X			X			
5	Nonconforming building construction type				X		X	X	X	X	X	X	X	X	X	X	
6	Imporperly properly protected vertical openings				X		X		X	X	X		X				
7	Large penetrations and fire barriers				X					X	X		X				
8	Corridor walls do not extend to the structure			X	X		X		X	X	X		X				
9	Hazardous areas not properly protected	X	X		X			X		X	X	X				X	
	Construction Related Issues																
10	Blocking off an approved exit			X	X	X	X			X	X	X	X		X		
11	Renovation on an occupied floor			X	X	X	X	X	X	X	X	X	X		X	X	
12	Replacing the fire alarm system (out of service)	X	X		X		X			X	X	X	X	X	X		
13	Installing sprinkler system (out of service)	X	X		X		X	X		X	X	X	X	X	X	X	
14	Significantly modifying smoke or fire barrier walls			X	X	X	X	X	X	X	X	X	X		X	X	
15	Hot work				X		X	X	X	X	X	X			X	X	
	Maintenance and Testing																
16	Taking a fire alarm system out of service	X	X		X		X	X		X		X		X	X	X	
17	Taking a sprinkler system out of service	X	X		X		X	X		X		X		X		X	
18	Disconnecting or disabling alarm devices	X	X		X		X							X	X		
19	Re-Lamping stairwells			X	X	X											
20																	

Comments: _____

Construction : Activity Risk Precaution Level

Level of Construction Activity	Type A	Type B	Type C	Type D
Patient Risk Occupancy Group	Low	Medium	High	Highest
Inf. Control Precaution Level	Class I	Class II	Class III	Class IV

Example #3



Risk Assessment Matrix

Existing significant Life Safety Code Deficiencies or Conditions as a result of Construction or Maintenance

Per TJC LS.01.02.01

	Code Deficiencies															
1	Lacking a code compliant smoke barrier											X	X	X	X	
2	Fire exit stairs discharge improperly													X		
3	Excessive travel distance to an approved exit															
4	Lack of two remote exits												X			
5	Nonconforming building construction type											X	X	X	X	
6	Imporperly property protected vertical openings				X		X		X	X	X		X			
7	Large penetrations and fire barriers				X					X	X		X			
8	Corridor walls do not extend to the structure			X	X		X		X	X	X		X			
9	Hazardous areas not properly protected	X	X		X			X		X	X	X				X
	Construction Related Issues															
10	Blocking off an approved exit			X	X	X	X			X	X	X	X		X	
11	Renovation on an occup[illegible]			X	X	X	X	X	X	X	X	X	X		X	X
12	Replacing the fire alarm syst[illegible] of service)	X	X		X		X			X	X	X	X	X	X	
13	Installing sprinkler system (out of [illegible]											X	X	X	X	X
14	Significantly modifying smoke or fire bar[illegible]											X	X		X	X
15	Hot work											X			X	X
	Maintenance and Testing															
16	Taking a fire alarm system out of service	X	X		X		X	X		X		X		X		X
17	Taking a sprinkler system out of service	X	X		X		X	X		X		X		X		X
18	Disconnecting or disabling alarm devices	X	X		X		X							X	X	
19	Re-Lamping stairwells			X	X	X										
20																

Comments: _____

Construction : Activity Risk Precaution Level

Level of Construction Activity	Type A	Type B	Type C	Type D
Patient Risk Occupancy Group	Low	Medium	High	Highest
Inf. Control Precaution Level	Class I	Class II	Class III	Class IV

Closer Look at Construction Deficiencies

#10 – "Blocking an exit"

10. Blocking off an approved exit

Consider using these ILSMs:

1 - Facility post signage identifying the location of alternate exits

2 - Facility has a written interim life safety measure (ILSM) plan

3 - Exits in affected areas are inspected on a daily basis

4 - Temporary but the equivalent fire alarm and detection systems are used when a fire system is impaired

Construction Deficiencies

10. Blocking off an approved exit

Consider using these ILSMs:

5 - Surveillance of buildings, grounds, and equipment are increased with special attention to construction areas and storage (Includes FD Access)

6 - Facility enforces storage, housekeeping, and debris removal practices that reduce the flammable and combustible fire load

7 - Facility provides additional training on the use of firefighting equipment to those who work in the Facility as needed

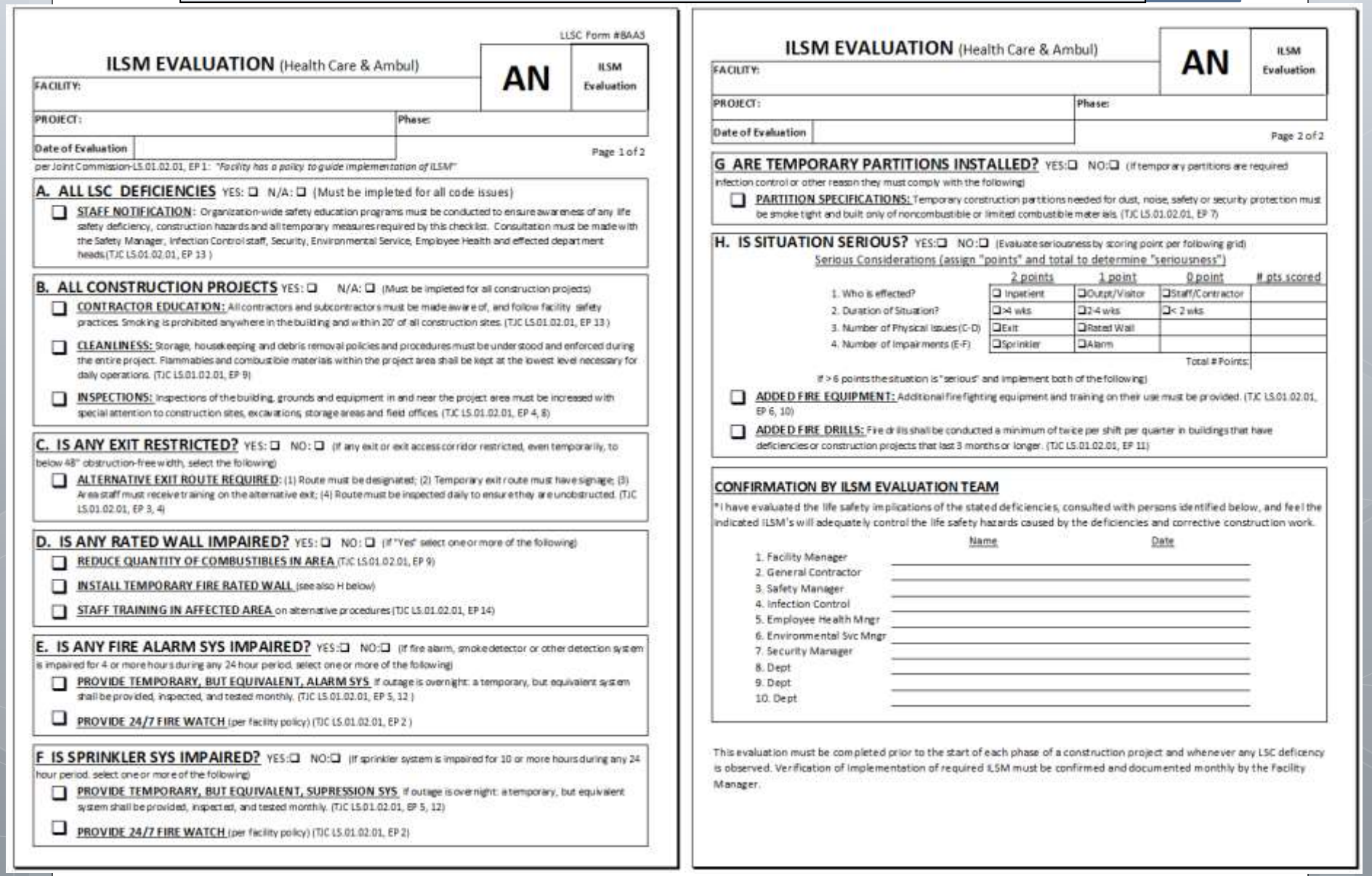
10. Blocking off an approved exit

Consider using these ILSMs:

8 - Facility conducts one additional fire drill per shift per quarter in the affected areas

9 - Facility conducts education to promote awareness of building deficiencies, hazards, and temporary measures for fire safety

Example #4: ILSM Evaluation Tool



LLSC Form #BAA5

ILSM EVALUATION (Health Care & Ambul)

AN | ILSM Evaluation

FACILITY:

PROJECT: Phase:

Date of Evaluation

Page 1 of 2

per Joint Commission-LS.01.02.01, EP 1: *"Facility has a policy to guide implementation of ILSM"*

A. ALL LSC DEFICIENCIES YES: ☐ N/A: ☐ (Must be impleted for all code issues)

☐ **STAFF NOTIFICATION:** Organization-wide safety education programs must be conducted to ensure awareness of any life safety deficiency, construction hazards and all temporary measures required by this checklist. Consultation must be made with the Safety Manager, Infection Control staff, Security, Environmental Service, Employee Health and effected department heads.(TJC LS.01.02.01, EP 13)

B. ALL CONSTRUCTION PROJECTS YES: ☐ N/A: ☐ (Must be impleted for all construction projects)

☐ **CONTRACTOR EDUCATION:** All contractors and subcontractors must be made aware of, and follow facility safety practices. Smoking is prohibited anywhere in the building and within 20' of all construction sites. (TJC LS.01.02.01, EP 13)

☐ **CLEANLINESS:** Storage, housekeeping and debris removal policies and procedures must be understood and enforced during the entire project. Flammables and combustible materials within the project area shall be kept at the lowest level necessary for daily operations. (TJC LS.01.02.01, EP 9)

☐ **INSPECTIONS:** Inspections of the building, grounds and equipment in and near the project area must be increased with special attention to construction sites, excavations, storage areas and field offices. (TJC LS.01.02.01, EP 4, 8)

C. IS ANY EXIT RESTRICTED? YES: ☐ NO: ☐ (If any exit or exit access corridor restricted, even temporarily, to below 48" obstruction-free width, select the following)

☐ **ALTERNATIVE EXIT ROUTE REQUIRED:** (1) Route must be designated; (2) Temporary exit route must have signage; (3) Area staff must receive training on the alternative exit; (4) Route must be inspected daily to ensure they are unobstructed. (TJC LS.01.02.01, EP 3, 4)

D. IS ANY RATED WALL IMPAIRED? YES: ☐ NO: ☐ (If "Yes" select one or more of the following)

☐ **REDUCE QUANTITY OF COMBUSTIBLES IN AREA** (TJC LS.01.02.01, EP 9)

☐ **INSTALL TEMPORARY FIRE RATED WALL** (see also H below)

☐ **STAFF TRAINING IN AFFECTED AREA** on alternative procedures (TJC LS.01.02.01, EP 14)

E. IS ANY FIRE ALARM SYS IMPAIRED? YES: ☐ NO: ☐ (If fire alarm, smoke detector or other detection system is impaired for 4 or more hours during any 24 hour period, select one or more of the following)

☐ **PROVIDE TEMPORARY, BUT EQUIVALENT, ALARM SYS.** If outage is overnight: a temporary, but equivalent system shall be provided, inspected, and tested monthly. (TJC LS.01.02.01, EP 5, 12)

☐ **PROVIDE 24/7 FIRE WATCH** (per facility policy) (TJC LS.01.02.01, EP 2)

F. IS SPRINKLER SYS IMPAIRED? YES: ☐ NO: ☐ (If sprinkler system is impaired for 10 or more hours during any 24 hour period, select one or more of the following)

☐ **PROVIDE TEMPORARY, BUT EQUIVALENT, SUPRESSION SYS.** If outage is overnight: a temporary, but equivalent system shall be provided, inspected, and tested monthly. (TJC LS.01.02.01, EP 5, 12)

☐ **PROVIDE 24/7 FIRE WATCH** (per facility policy) (TJC LS.01.02.01, EP 2)

ILSM EVALUATION (Health Care & Ambul)

AN | ILSM Evaluation

FACILITY:

PROJECT: Phase:

Date of Evaluation

G. ARE TEMPORARY PARTITIONS INSTALLED? YES: ☐ NO: ☐ (If temporary partitions are required infection control or other reason they must comply with the following)

☐ **PARTITION SPECIFICATIONS:** Temporary construction partitions needed for dust, noise, safety or security protection must be smoke tight and built only of noncombustible or limited combustible materials. (TJC LS.01.02.01, EP 7)

H. IS SITUATION SERIOUS? YES: ☐ NO: ☐ (Evaluate seriousness by scoring point per following grid)

Serious Considerations (assign "points" and total to determine "seriousness")

	2 points	1 point	0 point	# pts scored
1. Who is effected?	☐ Inpatient	☐Outpt/Visitor	☐Staff/Contractor	
2. Duration of Situation?	☐>4 wks	☐2-4 wks	☐< 2 wks	
3. Number of Physical Issues (C-D)	☐Exit	☐Rated Wall		
4. Number of Impairments (E-F)	☐Sprinkler	☐Alarm		
			Total # Points:	

If > 6 points the situation is "serious" and implement both of the following)

☐ **ADDED FIRE EQUIPMENT:** Additional fire fighting equipment and training on their use must be provided. (TJC LS.01.02.01, EP 6, 10)

☐ **ADDED FIRE DRILLS:** Fire drills shall be conducted a minimum of twice per shift per quarter in buildings that have deficiencies or construction projects that last 3 months or longer. (TJC LS.01.02.01, EP 11)

CONFIRMATION BY ILSM EVALUATION TEAM

"I have evaluated the life safety implications of the stated deficiencies, consulted with persons identified below, and feel the indicated ILSM's will adequately control the life safety hazards caused by the deficiencies and corrective construction work.

	Name	Date
1. Facility Manager		
2. General Contractor		
3. Safety Manager		
4. Infection Control		
5. Employee Health Mngr		
6. Environmental Svc Mngr		
7. Security Manager		
8. Dept		
9. Dept		
10. Dept		

This evaluation must be completed prior to the start of each phase of a construction project and whenever any LSC deficency is observed. Verification of implementation of required ILSM must be confirmed and documented monthly by the Facility Manager.

Example #4: ILSM Evaluation Tool

A. ALL LSC DEFICIENCIES YES: ❑ N/A: ❑ (Must be impleted for all code issues)

❑ **STAFF NOTIFICATION**: Organization-wide safety education programs must be conducted to ensure awareness of any life safety deficiency, construction hazards and all temporary measures required by this checklist. Consultation must be made with the Safety Manager, Infection Control staff, Security, Environmental Service, Employee Health and effected department heads.(TJC LS.01.02.01, EP 13)

B. ALL CONSTRUCTION PROJECTS YES: ❑ N/A: ❑ (Must be impleted for all construction projects)

❑ **CONTRACTOR EDUCATION:** All contractors and subcontractors must be made aware of, and follow facility safety practices. Smoking is prohibited anywhere in the building and within 20' of all construction sites. (TJC LS.01.02.01, EP 13)

❑ **CLEANLINESS:** Storage, housekeeping and debris removal policies and procedures must be understood and enforced during the entire project. Flammables and combustible materials within the project area shall be kept at the lowest level necessary for daily operations. (TJC LS.01.02.01, EP 9)

❑ **INSPECTIONS:** Inspections of the building, grounds and equipment in and near the project area must be increased with special attention to construction sites, excavations, storage areas and field offices. (TJC LS.01.02.01, EP 4, 8)

Example #4: ILSM Evaluation Tool

C. IS ANY EXIT RESTRICTED? YES: ❑ NO: ❑ (If any exit or exit access corridor restricted, even temporarily, to below 48" obstruction-free width, select the following)

- ❑ **ALTERNATIVE EXIT ROUTE REQUIRED:** (1) Route must be designated; (2) Temporary exit route must have signage; (3) Area staff must receive training on the alternative exit; (4) Route must be inspected daily to ensure they are unobstructed. (TJC LS.01.02.01, EP 3, 4)

D. IS ANY RATED WALL IMPAIRED? YES: ❑ NO: ❑ (If "Yes" select one or more of the following)

- ❑ **REDUCE QUANTITY OF COMBUSTIBLES IN AREA** (TJC LS.01.02.01, EP 9)
- ❑ **INSTALL TEMPORARY FIRE RATED WALL** (see also H below)
- ❑ **STAFF TRAINING IN AFFECTED AREA** on alternative procedures (TJC LS.01.02.01, EP 14)

E. IS ANY FIRE ALARM SYS IMPAIRED? YES:❑ NO:❑ (If fire alarm, smoke detector or other detection system is impaired for 4 or more hours during any 24 hour period. select one or more of the following)

- ❑ **PROVIDE TEMPORARY, BUT EQUIVALENT, ALARM SYS** If outage is overnight: a temporary, but equivalent system shall be provided, inspected, and tested monthly. (TJC LS.01.02.01, EP 5, 12)
- ❑ **PROVIDE 24/7 FIRE WATCH** (per facility policy) (TJC LS.01.02.01, EP 2)

F IS SPRINKLER SYS IMPAIRED? YES:❑ NO:❑ (If sprinkler system is impaired for 10 or more hours during any 24 hour period. select one or more of the following)

- ❑ **PROVIDE TEMPORARY, BUT EQUIVALENT, SUPRESSION SYS** If outage is overnight: a temporary, but equivalent system shall be provided, inspected, and tested monthly. (TJC LS.01.02.01, EP 5, 12)
- ❑ **PROVIDE 24/7 FIRE WATCH** (per facility policy) (TJC LS.01.02.01, EP 2)

Example #4: ILSM Evaluation Tool

G ARE TEMPORARY PARTITIONS INSTALLED? YES:❑ NO:❑ (If temporary partitions are required infection control or other reason they must comply with the following)

❑ **PARTITION SPECIFICATIONS:** Temporary construction partitions needed for dust, noise, safety or security protection must be smoke tight and built only of noncombustible or limited combustible materials. (TJC LS.01.02.01, EP 7)

H. IS SITUATION SERIOUS? YES:❑ NO:❑ (Evaluate seriousness by scoring point per following grid)

Serious Considerations (assign "points" and total to determine "seriousness")

	2 points	1 point	0 point	# pts scored
1. Who is effected?	❑ Inpatient	❑Outpt/Visitor	❑Staff/Contractor	
2. Duration of Situation?	❑>4 wks	❑2-4 wks	❑< 2 wks	
3. Number of Physical Issues (C-D)	❑Exit	❑Rated Wall		
4. Number of Impairments (E-F)	❑Sprinkler	❑Alarm		
			Total # Points:	

If > 6 points the situation is "serious" and implement both of the following)

❑ **ADDED FIRE EQUIPMENT:** Additional fire fighting equipment and training on their use must be provided. (TJC LS.01.02.01, EP 6, 10)

❑ **ADDED FIRE DRILLS:** Fire drills shall be conducted a minimum of twice per shift per quarter in buildings that have deficiencies or construction projects that last 3 months or longer. (TJC LS.01.02.01, EP 11)

Example #4: ILSM Evaluation Tool

CONFIRMATION BY ILSM EVALUATION TEAM

*I have evaluated the life safety implications of the stated deficiencies, consulted with persons identified below, and feel the indicated ILSM's will adequately control the life safety hazards caused by the deficiencies and corrective construction work.

	Name	Date
1. Facility Manager		
2. General Contractor		
3. Safety Manager		
4. Infection Control		
5. Employee Health Mngr		
6. Environmental Svc Mngr		
7. Security Manager		
8. Dept		
9. Dept		
10. Dept		

Example #4: ILSM Tool

ILSM Evaluation form is available through Oct 30 for free on the LLSC website:

Lauzon-LSC.com

Search

Click

Lauzon Life Safety Consulting

Questions? 262-664-9071

Call Now!
Bill Lauzon, 262-945-4567
Lauzon.LSC@gmail.com
Heather Werner, 262-664-9071
HLauzonWerner@gmail.com

FREE FORMS

Test & Inspection Documentation make up about HALF of the CMS & Joint Commission citations.

Keys to Avoid Cites:
- **KNOW the Code Requirements**
- **USE the Correct Form** (i.e. covers all the code requirements)
- **MAKE SURE** the scheduled work is completed

ILSM Forms
(OCT WHEA L&L)

2 forms are available until the end of Oct 2019 for FREE. Clicks below

ILSM Evaluation Form

ILSM Daily Checks

Click

FREE FORMS

Here is a SAMPLE of of the forms that are available to Code Central members. NOTE: The FREE forms are in "pdf" format and typically based on the 2000 Life Safety Code

JOIN CODE CENTRAL to get:

1. Many MORE forms
2. Forms that are UPDATED to follow the 2012 LSC, 2012 NFPA 99, and all the referenced codes
3. Forms that are in an "Excel" or "Word" format so you can easily CUSTOMIZE to your situation

DAILY INSPECTIONS
- ILSM Daily Checks

WEEKLY INSPECTIONS
- Roll/Slide Fire Doors Annual
- Generator Weekly

MONTHLY INSPECTIONS
- Elevator Recall Monthly
- Wet Sys Monthly
- Fire Pump Monthly/SA
- Fire Extinguishers Monthly
- Exit Lights Monthly
- Generator Monthly
- Emerg Battery Monthly

QUARTERLY INSPECTIONS
- Fire Drill
- Fire Drill Log
- Sprinkler (Qrtly)
- Generator Maintenance (Q-SA-A)

Safety Steps In Construction Projects

Welcome to the WHEA

Oct 2019 Lunch & Learn

Lauzon Life Safety Consulting

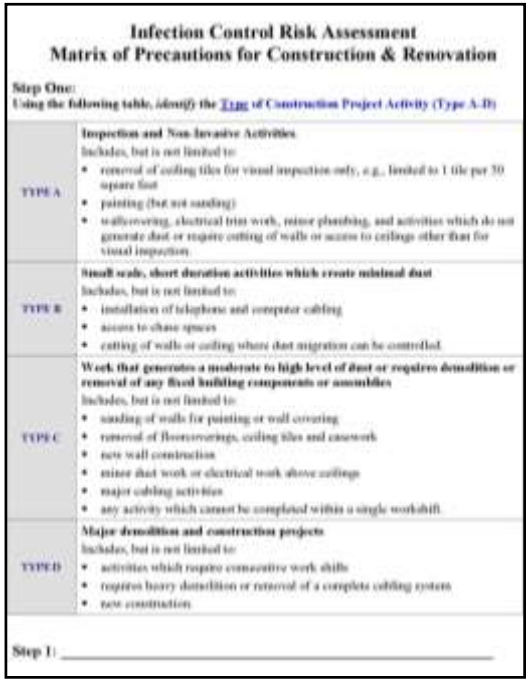
AGENDA

1. Big Safety Picture
2. Phasing
3. Life Safety Assessment
4. ILSM
5. **Infection Assessment**
6. Barriers & Controls

INFECTION CONTROL EVALUATION

Use the Infection Control Risk Assessment tool (ICRA)

Multi-page Tool; Very Common; Several versions; Available On-Line

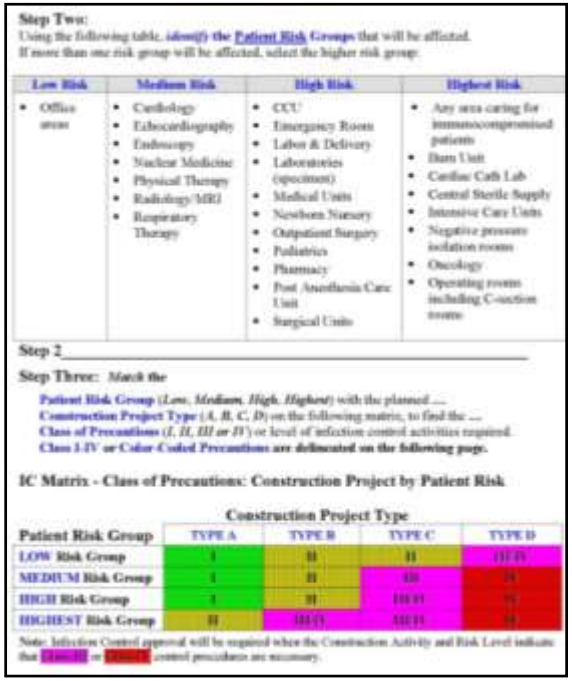


Infection Control Risk Assessment
Matrix of Precautions for Construction & Renovation

Step One:
Using the following table, identify the Type of Construction Project Activity (Type A-D)

TYPE A	**Inspection and Non-Invasive Activities** Includes, but is not limited to: • removal of ceiling tiles for visual inspection only, e.g., limited to 1 tile per 50 square feet • painting (but not sanding) • wallcovering, electrical trim work, minor plumbing, and activities which do not generate dust or require cutting of walls or access to ceilings other than for visual inspection
TYPE B	**Small scale, short duration activities which create minimal dust** Includes, but is not limited to: • installation of telephone and computer cabling • access to chase spaces • cutting of walls or ceiling where dust migration can be controlled
TYPE C	**Work that generates a moderate to high level of dust or requires demolition or removal of any fixed building components or assemblies** Includes, but is not limited to: • sanding of walls for painting or wall covering • removal of floorcoverings, ceiling tiles and casework • new wall construction • minor duct work or electrical work above ceilings • major cabling activities • any activity which cannot be completed within a single workshift
TYPE D	**Major demolition and construction projects** Includes, but is not limited to: • activities which require consecutive work shifts • requires heavy demolition or removal of a complete cabling system • new construction

Step 1: _____



Step Two:
Using the following table, identify the Patient Risk Groups that will be affected.
If more than one risk group will be affected, select the higher risk group.

Low Risk	Medium Risk	High Risk	Highest Risk
• Office areas	• Cardiology • Echocardiography • Endoscopy • Nuclear Medicine • Physical Therapy • Radiology/MRI • Respiratory Therapy	• CCU • Emergency Room • Labor & Delivery • Laboratories (specimen) • Medical Units • Newborn Nursery • Outpatient Surgery • Pediatrics • Pharmacy • Post Anesthesia Care Unit • Surgical Units	• Any area caring for immunocompromised patients • Burn Unit • Cardiac Cath Lab • Central Sterile Supply • Intensive Care Units • Negative pressure isolation rooms • Oncology • Operating rooms including C-suction rooms

Step 2 _____

Step Three: *Match the*

Patient Risk Group (*Low, Medium, High, Highest*) with the planned ....
Construction Project Type (*A, B, C, D*) on the following matrix, to find the ....
Class of Precautions (*I, II, III or IV*) or level of infection control activities required.
Class I-IV or Color Coded Precautions are delineated on the following page.

IC Matrix - Class of Precautions: Construction Project by Patient Risk

Patient Risk Group	Construction Project Type			
	TYPE A	TYPE B	TYPE C	TYPE D
LOW Risk Group	I	II	II	III/IV
MEDIUM Risk Group	I	II	III	IV
HIGH Risk Group	I	II	III/IV	IV
HIGHEST Risk Group	II	III/IV	III/IV	IV

Note: Infection Control approval will be required when the Construction Activity and Risk Level indicate that Class III or Class IV control precautions are necessary.

Description of Required Infection Control Precautions by Class

	During Construction Project	Upon Completion of Project
Class I	1. Execute work by methods to minimize raising dust from construction operations. 2. Immediately replace a ceiling tile displaced for visual inspection.	1. Clean work area upon completion of task.
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 dust tape. 4. Block off and seal air vents. 5. Place dust mat at entrance and exit of work area. 6. Remove or isolate HVAC system in area where work is being performed.	1. Wipe work surfaces with cleaner/disinfectant. 2. Contain construction waste before transport in tightly covered containers. 3. Wet mop and/or vacuum with HEPA filtered vacuum before leaving work area. 4. Upon completion, restore HVAC system where work was performed.
Class III	1. Remove or isolate HVAC system in area where work is being done to prevent contamination of duct system. 2. Complete all critical barriers (i.e. sheetrock, plywood, plastic, to seal area from non-work area or implement control cube method (cart with plastic covering and sealed connection to work site with HEPA vacuum for vacuuming prior to exit) 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.	1. Do not remove barriers from work area until completed project is inspected by the owner's Safety Department and Infection Prevention & Control Department and thoroughly cleaned by the owner's Environmental Services Department. 2. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. 3. Vacuum work area with HEPA filtered vacuums. 4. Wet mop area with cleaner/disinfectant. 5. Upon completion, restore HVAC system where work was performed.
Class IV	1. Isolate HVAC system in area where work is being done to prevent contamination of duct system. 2. Complete all critical barriers (i.e. sheetrock, plywood, plastic, to seal area from non-work area or implement control cube method (cart with plastic covering and sealed connection to work site with HEPA vacuum for vacuuming prior to exit) before construction begins. 3. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. 4. Seal holes, pipes, conduits, and punctures. 5. 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 or they can wear cloth or paper coveralls that are removed each time they leave work site. 6. All personnel entering work site are required to wear shoe covers. Shoe covers must be changed each time the worker exits the work area.	1. Do not remove barriers from work area until completed project is inspected by the owner's Safety Department and Infection Prevention & Control Department and thoroughly cleaned by the owner's Environmental Services Dept. 2. Remove barrier material carefully to minimize spreading of dirt and debris associated with construction. 3. Contain construction waste before transport in tightly covered containers. 4. Cover transport receptacles or carts. Tape covering unless solid lid. 5. Vacuum work area with HEPA filtered vacuums. 6. Wet mop area with cleaner/disinfectant. 7. Upon completion, restore HVAC system where work was performed.

1. Evaluate Amount of Dust

ICRA

TYPE A	**Inspection and Non-Invasive Activities.** Includes, but is not limited to: ▪ removal of ceiling tiles for visual inspection only, e.g., limited to 1 tile p square feet ▪ painting (but not sanding) ▪ wallcovering, electrical trim work, minor plumbing, and activities which generate dust or require cutting of walls or access to ceilings other than for visual inspection.
TYPE B	**Small scale, short duration activities which create minimal dust** Includes, but is not limited to: ▪ installation of telephone and computer cabling ▪ access to chase spaces ▪ cutting of walls or ceiling where dust migration can be controlled.
TYPE C	**Work that generates a moderate to high level of dust or requires demolition or removal of any fixed building components or assemblies** Includes, but is not limited to: ▪ sanding of walls for painting or wall covering ▪ removal of floorcoverings, ceiling tiles and casework ▪ new wall construction ▪ minor duct work or electrical work above ceilings ▪ major cabling activities ▪ any activity which cannot be completed within a single workshift.
TYPE D	**Major demolition and construction projects** Includes, but is not limited to: ▪ activities which require consecutive work shifts ▪ requires heavy demolition or removal of a complete cabling system ▪ new construction.

A- Inspection
(Very Little)

B-Small Amount

C-Moderate Amount

D-Large Amount

Why all the Dust Concern?

Bacteria, Virus & Mold are Hitch-Hikers !

Infection causing contaminates,
such as **aspergillus fungi**,
are almost always present in

COMMON EVERYDAY DUST

Normally, dust will not harm persons with healthy bodies, other than perhaps an allergic reaction.

1. Evaluate Amount of Dust

TYPE A	**Inspection and Non-Invasive Activities.** Includes, but is not limited to: ▪ removal of ceiling tiles for visual inspection only, e.g., limited to 1 tile per 50 square feet ▪ painting (but not sanding) ▪ wallcovering, electrical trim work, minor plumbing, and activities which do not generate dust or require cutting of walls or access to ceilings other than for visual inspection.
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TYPE D	**Major demolition and construction projects** Includes, but is not limited to: ▪ activities which require consecutive work shifts ▪ requires heavy demolition or removal of a complete cabling ▪ new construction.

C

EXAMPLE:

A project is expected to last 3 weeks and requires knocking down a wall.

What Type is it?

Step Two:
Using the following table, ***identify*** **the Patient Risk Groups** that will be affected.
If more than one risk group will be affected, select the higher risk group:

Low Risk	Medium Risk	High Risk	Highest Risk
▪ Office areas	▪ Cardiology ▪ Echocardiography ▪ Endoscopy ▪ Nuclear Medicine ▪ Physical Therapy ▪ Radiology/MRI ▪ Respiratory Therapy	▪ CCU ▪ Emergency Room ▪ Labor & Delivery ▪ Laboratories (specimen) ▪ Medical Units ▪ Newborn Nursery ▪ Outpatient Surgery ▪ Pediatrics ▪ Pharmacy ▪ Post Anesthesia Care Unit ▪ Surgical Units	▪ Any area caring for immunocompromised patients ▪ Burn Unit ▪ Cardiac Cath Lab ▪ Central Sterile Supply ▪ Intensive Care Units ▪ Negative pressure isolation rooms ▪ Oncology ▪ Operating rooms including C-section rooms

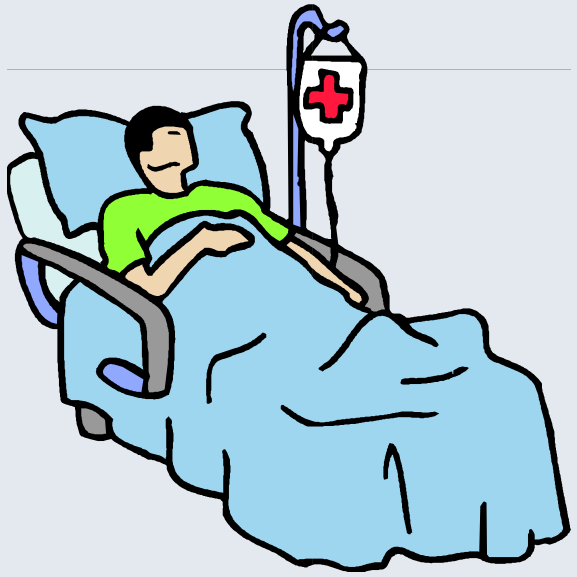
Non-Pt Out-Patient ← In-Patient →

Why all the Location Concern?

Patients, who are already ill, are very susceptible to becoming even more ill or die from contaminates

Immunosuppressed patients include those in:

- Surgery
- recent surgery
- Chemotherapy
- ICU/CCU
- Nursery
- Emergency
- Elderly (anywhere)



2. Evaluate Patient Risk

ICRA

Non-Pt | Out-Patient | In-Patient

Low Risk	Medium Risk	High Risk	Highest Risk
▪ Office areas	▪ Cardiology ▪ Echocardiography ▪ Endoscopy ▪ Nuclear Medicine ▪ Physical Therapy ▪ Radiology/MRI ▪ Respiratory Therapy	▪ CCU ▪ Emergency Room ▪ Labor & Delivery ▪ Laboratories (specimen) ▪ Medical Units ▪ Newborn Nursery ▪ Outpatient Surgery ▪ Pediatrics ▪ Pharmacy ▪ Post Anesthesia Care Unit ▪ Surgical Units	▪ Any area caring for immunocompromised patients ▪ Burn Unit ▪ Cardiac Cath Lab ▪ Central Sterile Supply ▪ Intensive Care Units ▪ Negative pressure isolation rooms ▪ Oncology ▪ Operating rooms including C-section rooms

EXAMPLE:

A project will take place in a patient sleeping unit.

What Risk is it?

High

Step Three: ***Match*** **the**

Patient Risk Group (*Low, Medium, High, Highest*) with the planned …
Construction Project Type (*A, B, C, D*) on the following matrix, to find the …

Class of Precautions (*I, II, III or IV*) or level of infection control activities required.

IC Matrix - Class of Precautions: Construction Project by Patient Risk

Patient Risk Group	Construction Project Type: TYPE A	TYPE B	TYPE C	TYPE D
LOW Risk Group	I	II	II	III/IV
MEDIUM Risk Group	I	II	III	IV
HIGH Risk Group	I	II	III/IV	IV
HIGHEST Risk Group	II	III/IV	III/IV	IV

Note: Infection Control approval will be required when the Construction Activity and Risk Level indicate that Class III or Class IV control procedures are necessary.

EXAMPLE: What Class of Precaution must this work take?

TYPE (Dust): A project is expected to last 3 weeks and requires knocking down a wall.

C

IC Matrix - Class of Precautions: Construction Project by Patient Risk

Patient Risk Group	Construction Project Type			
	TYPE A	TYPE B	TYPE C	TYPE D
LOW Risk Group	I	II	[illegible]	III/IV
MEDIUM Risk Group	I	II	[illegible]	IV
HIGH Risk Group	[illegible]	[illegible]	III/IV	IV
HIGHEST Risk Group	II	III/IV	III/IV	IV

Note: Infection Control approval will be required when the Construction Activity and Risk Level indicate that Class III or Class IV control procedures are necessary.

High

RISK (Location): A project will take place in a patient sleeping unit

Major Considerations for Protective Actions

- Travel Paths of Patients, Staff & Contractors –any cross of paths must be evaluated for cleanliness
- Material Staging Areas – Dust Levels
- Debris Removal Routes and Times
- Ventilation – intakes/exhausts; Dust Control
- Separation of Clean & Soiled –
- Susceptibility of adjacent patients – sides, above, below

Description of Required Infection Control Precautions

CLASS I → (Little dust / Non-patient location)

During Construction	1. Execute work by methods to minimize raising dust from construction operations. 2. Immediately replace a ceiling tile displaced for visual inspection
After Completion	1. Clean work area upon completion of task.

Description of Required Infection Control Precautions

CLASS II: →

During Construction

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.
5. Place dust mat at entrance and exit of work area
6. Remove or isolate HVAC system in areas where work is being performed.

After Completion

1. Wipe work surfaces with cleaner/disinfectant.
2. Contain construction waste before transport in tightly covered containers.
3. Wet mop and/or vacuum with HEPA filtered vacuum before leaving work area.
4. Upon completion, restore HVAC system where work was performed.

Description of Required Infection Control Precautions

CLASS III → (Moderate Dust / Any Location)

During Construction

1. Remove or Isolate HVAC system in area where work is being done to prevent contamination of duct system.
2. Complete all critical barriers i.e. sheetrock, plywood, plastic, to seal area from non work area or implement control cube method (cart with plastic covering and sealed connection to work site with HEPA vacuum for vacuuming prior to exit) 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.

Description of Required Infection Control Precautions

CLASS III → (Moderate Dust / Any Location)

After Construction

1. Do not remove barriers from work area until completed project is inspected by the owner's Safety Department and Infection Prevention & Control Department and thoroughly cleaned by the owner's Environmental Services Department.
2. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction.
3. Vacuum work area with HEPA filtered vacuums.
4. Wet mop area with cleaner/disinfectant.
5. Upon completion, restore HVAC system where work was performed.

Description of Required Infection Control Precautions

CLASS IV → (High Dust / Hightest Suseptible-Pt Location)

During Construction

1. Isolate HVAC system in area where work is being done to prevent contamination of duct system.
2. Complete all critical barriers i.e. sheetrock, plywood, plastic, to seal area from non work area or implement control cube method (cart with plastic covering and sealed connection to work site with HEPA vacuum for vacuuming prior to exit) before construction begins.
3. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units.
4. Seal holes, pipes, conduits, and punctures.
5. 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 or they can wear cloth or paper coveralls that are removed each time they leave work site.
6. All personnel entering work site are required to wear shoe covers. Shoe covers must be changed each time the worker exits the work area.

Description of Required Infection Control Precautions

CLASS IV → (High Dust / Any Patient Location)

After Construction

1. Do not remove barriers from work area until completed project is inspected by the owner's Safety Department and Infection Prevention & Control Department and thoroughly cleaned by the owner's Environmental Services Dept.
2. Remove barrier material carefully to minimize spreading of dirt and debris associated with construction.
3. Contain construction waste before transport in tightly covered containers.
4. Cover transport receptacles or carts. Tape covering unless solid lid.
5. Vacuum work area with HEPA filtered vacuums.
6. Wet mop area with cleaner/disinfectant.
7. Upon completion, restore HVAC system where work was performed.

Infection Control Permit

ICRA

Infection Control Construction Permit

Permit No:

Location of Construction:	Project Start Date:
Project Coordinator:	Estimated Duration:
Contractor Performing Work	Permit Expiration Date:
Supervisor:	Telephone:

YES	NO	CONSTRUCTION ACTIVITY	YES	NO	INFECTION CONTROL RISK GROUP
		TYPE A: Inspection, non-invasive activity			GROUP 1: Low Risk
		TYPE B: Small scale, short duration, moderate to high levels			GROUP 2: Medium Risk
		TYPE C: Activity generates moderate to high levels of dust, requires greater 1 work shift for completion			GROUP 3: Medium/High Risk
		TYPE D: Major duration and construction activities Requiring consecutive work shifts			GROUP 4: Highest Risk

CLASS I	1. Execute work by methods to minimize raising dust from construction operations. 2. Immediately replace any ceiling tile displaced for visual inspection.	3. Minor Demolition for Remodeling
CLASS II	1. Provides active means to prevent air-borne 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. 5. Wipe surfaces with cleaner/disinfectant.	6. Contain construction waste before transport in tightly covered containers. 7. Wet mop and/or vacuum with HEPA filtered vacuum before leaving work area. 8. Place dust mat at entrance and exit of work area. 9. Isolate HVAC system in areas where work is being performed; restore when work completed.
CLASS III Date Initial	1. Obtain infection control permit before construction begins. 2. Isolate HVAC system in area where work is being done to prevent contamination of the duct system. 3. Complete all critical barriers or implement control cube method before construction begins. 4. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. 5. Do not remove barriers from work area until complete project is checked by Infection Prevention & Control and thoroughly cleaned by Environmental Services.	6. Vacuum work with HEPA filtered vacuums. 7. Wet mop with cleaner/disinfectant. 8. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. 9. Contain construction waste before transport in tightly covered containers. 10. Cover transport receptacles or carts. Tape covering. 11. Upon completion, restore HVAC system where work was performed.
CLASS IV Date Initial	1. Obtain infection control permit before construction begins. 2. Isolate HVAC system in area where work is being done to prevent contamination of duct system. 3. Complete all critical barriers or implement control cube method before construction begins. 4. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. 5. Seal holes, pipes, conduits, and punctures appropriately. 6. 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 or they can wear cloth or paper coveralls that are removed each time they leave the work site. 7. All personnel entering work site are required to wear shoe covers.	8. Do not remove barriers from work area until complete project is checked by Infection Prevention & Contr and thoroughly cleaned by Environmental Services. 9. Vacuum work area with HEPA filtered vacuums. 10. Wet mop with disinfectant. 11. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. 12. Contain construction waste before transport in tightly covered containers. 13. Cover transport receptacles or carts. Tape covering. 14. Upon completion, restore HVAC system where work was performed.

Additional Requirements:

Date Initials	Date Initials Exceptions/Additions to this permit are noted by attached memoranda
Permit Request By:	Permit Authorized By:
Date:	Date:

Consider Implementing an Infection Prevention **Permit** System

(An extra part of ICRA)

Documents ICRA evaluation & approval

(Posted at Constr Entry)

Safety Steps In Construction Projects

Welcome to the WHEA

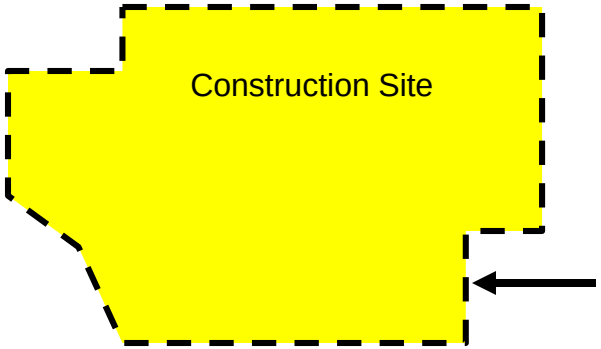
Oct 2019 Lunch & Learn

Lauzon Life Safety Consulting

AGENDA

1. Big Safety Picture
2. Phasing
3. Life Safety Assessment
4. ILSM
5. Infection Assessment
6. **Barriers & Controls**

BARRIERS & CONTROLS



Barrier

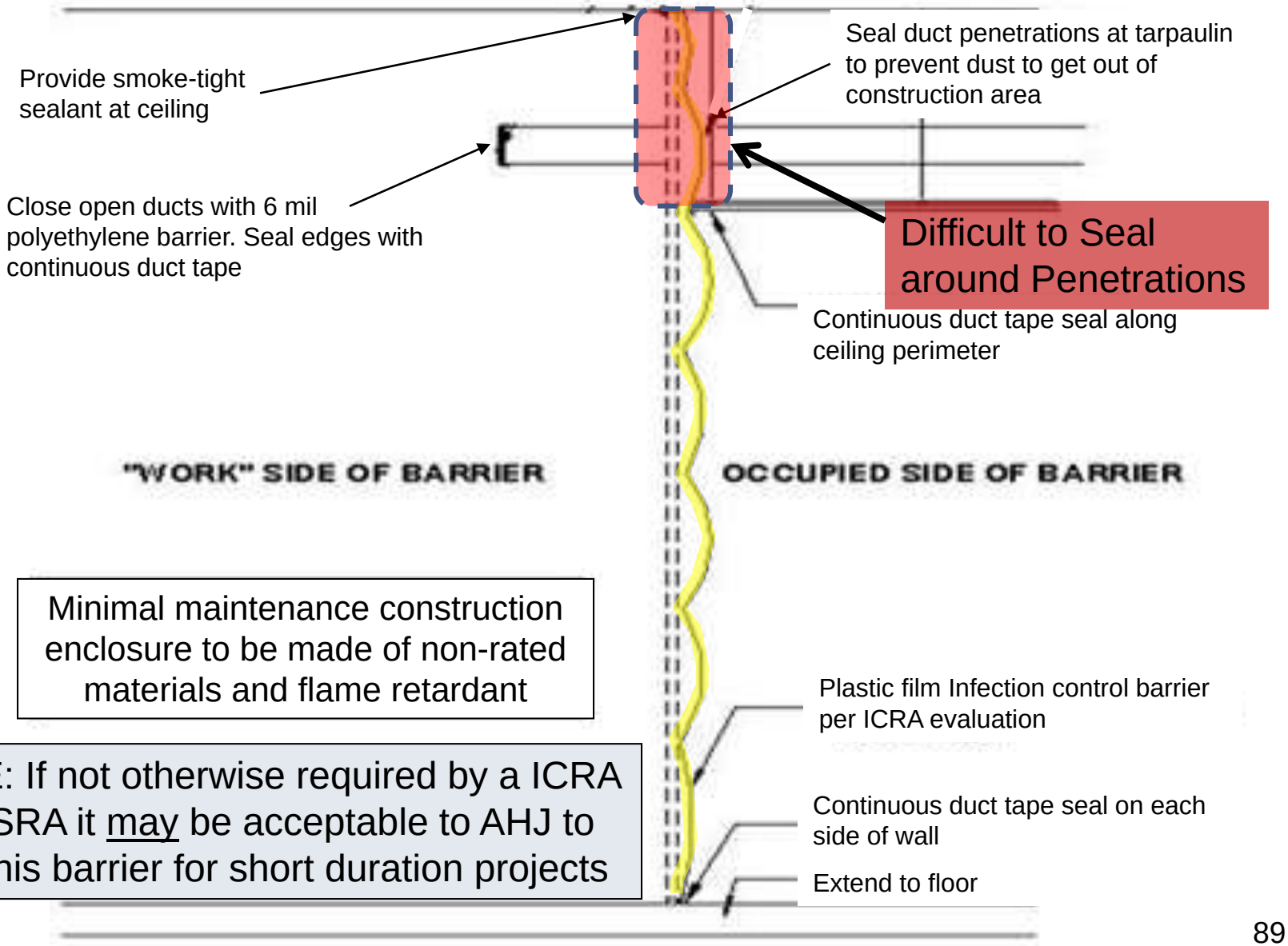
1. Provide around site perimeter, if required for dust control, fire rating, or security

2. Solid full-height wall to slab; materials as required

3. Should use visqueen barrier during building & removal of solid barrier; Must be limited combustible type, with zippered single or double doors (for carts); seams sealed with tape; mechanically attach to structure

Plastic Barriers

Constr Barriers

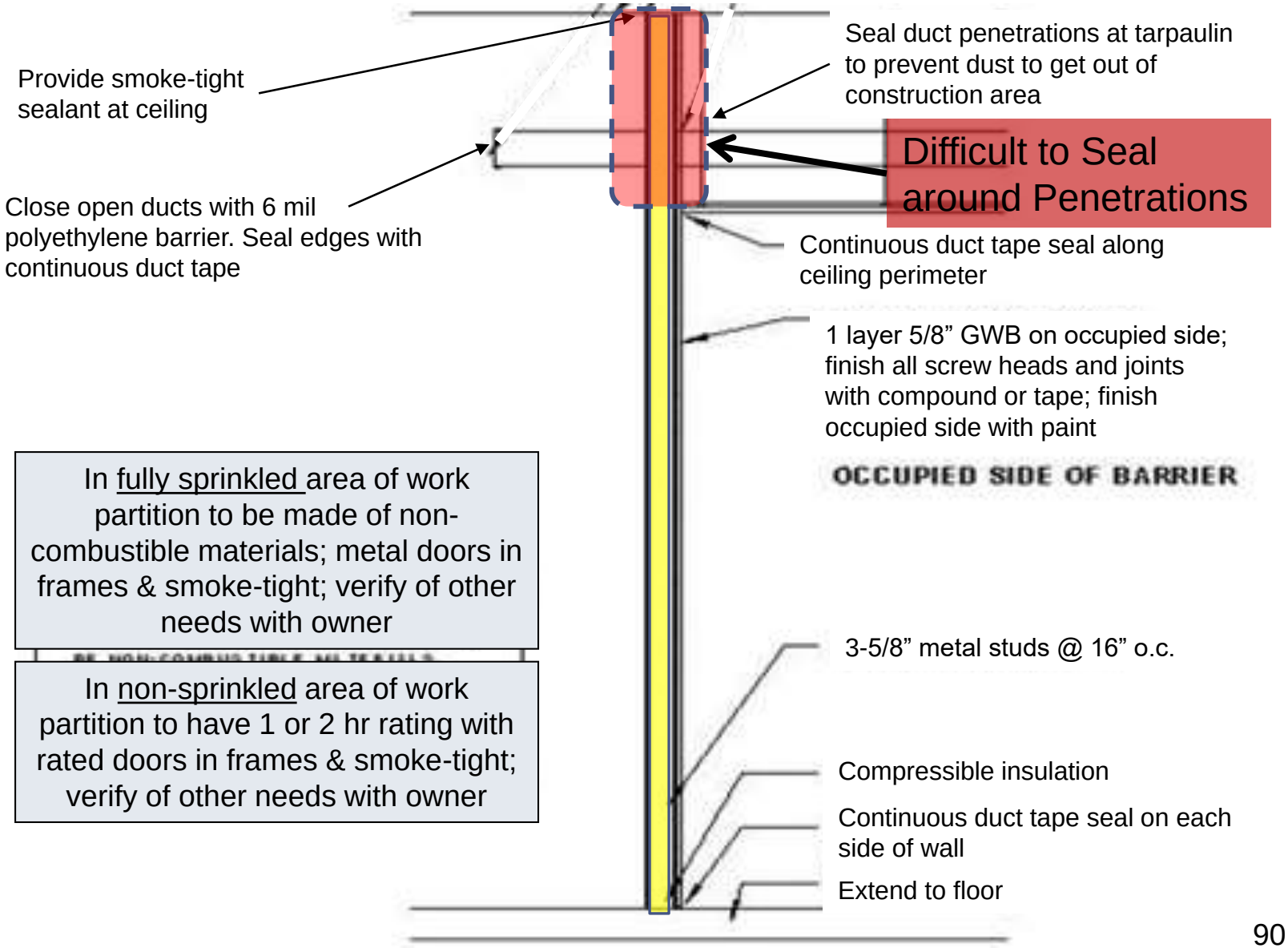


Minimal maintenance construction enclosure to be made of non-rated materials and flame retardant

NOTE: If not otherwise required by a ICRA or LSRA it <u>may</u> be acceptable to AHJ to use this barrier for short duration projects

“Hard” Barriers

Constr Barriers

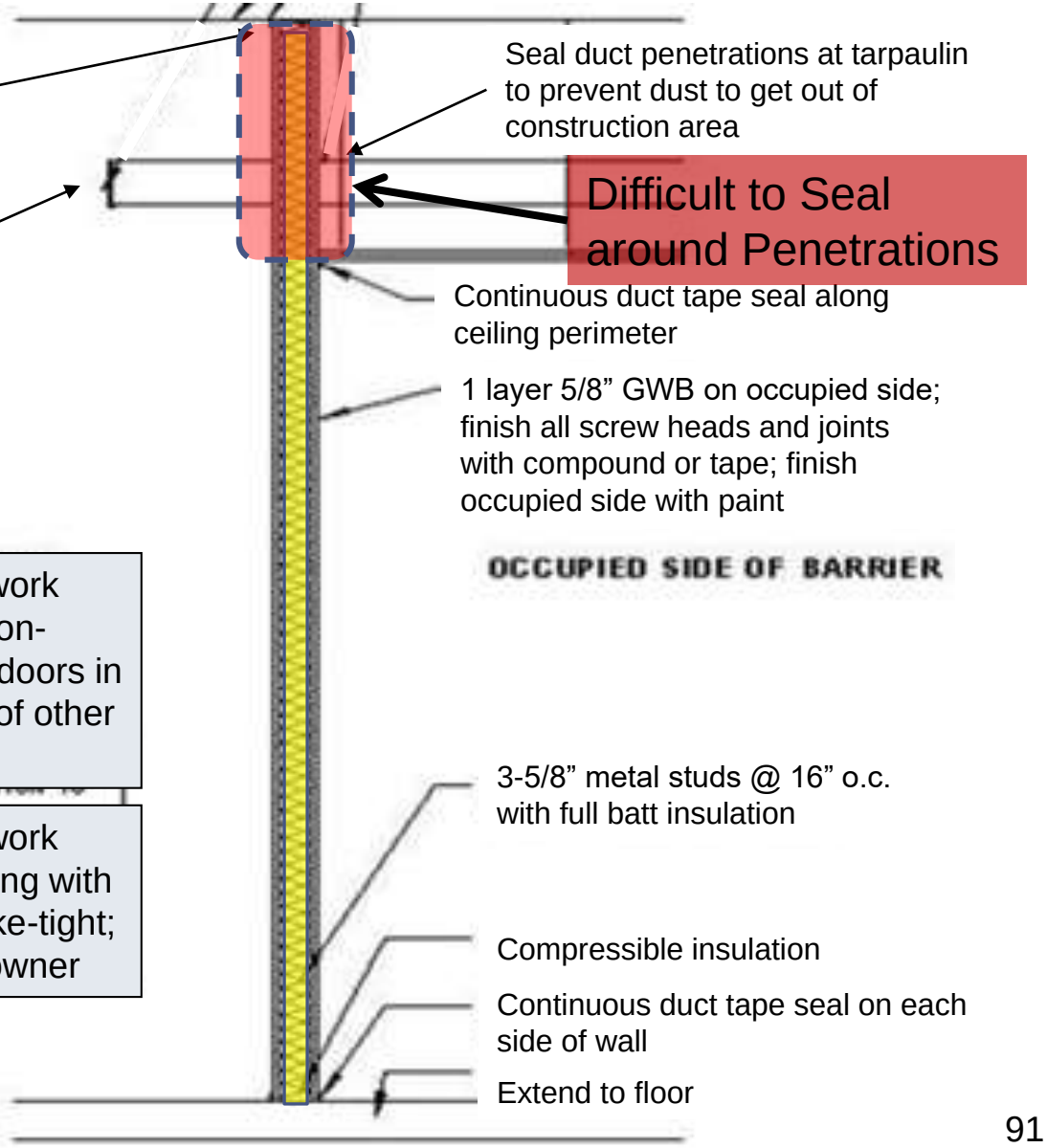


In fully sprinkled area of work partition to be made of non-combustible materials; metal doors in frames & smoke-tight; verify of other needs with owner

In non-sprinkled area of work partition to have 1 or 2 hr rating with rated doors in frames & smoke-tight; verify of other needs with owner

Insulated Barriers

Constr Barriers



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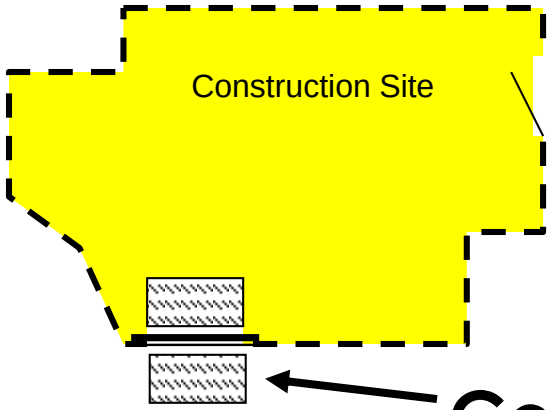
Controls



Restrict Entry

Try to limit the # doors in/out of the construction site. Where possible, seal & sign extra doors to restrict entry to reduce dust transfer

Contractor Entry

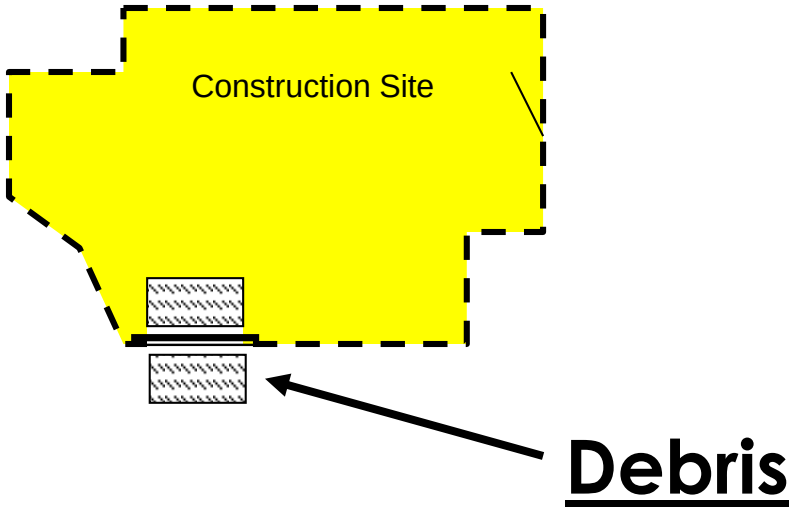
1. One in/out for contractors (away from pt & staff paths, if possible)

2. Sealed door; Doors must be kept closed except during deliveries; Doors should be locked during non-work periods

3. Wet mat inside area (shampoo as needed to keep clean)

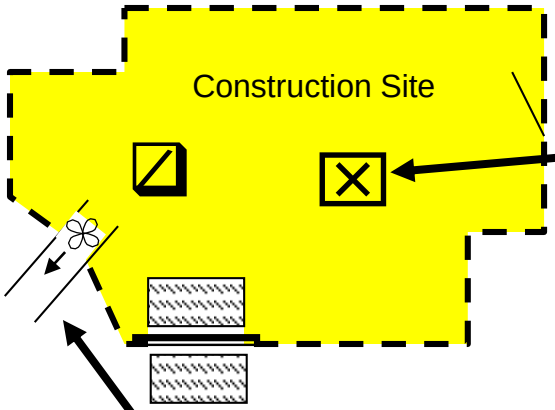
4. Dry mat outside; vac/shampoo as needed to keep clean; Need cleaning if stomping gives any dust (indicates poor cleanliness)

5. Sticky Mat outside; large enough for force walking on with both feet (replace if can't hear "sucking" when lifting feet)



1. Transport in clean carts
2. Must be covered if required by dust control level
3. Wipe exterior & wheels when dirty

Controls



Diffusers

Close supply & return grills or cover with filters

Negative Air (when required by ICRA)

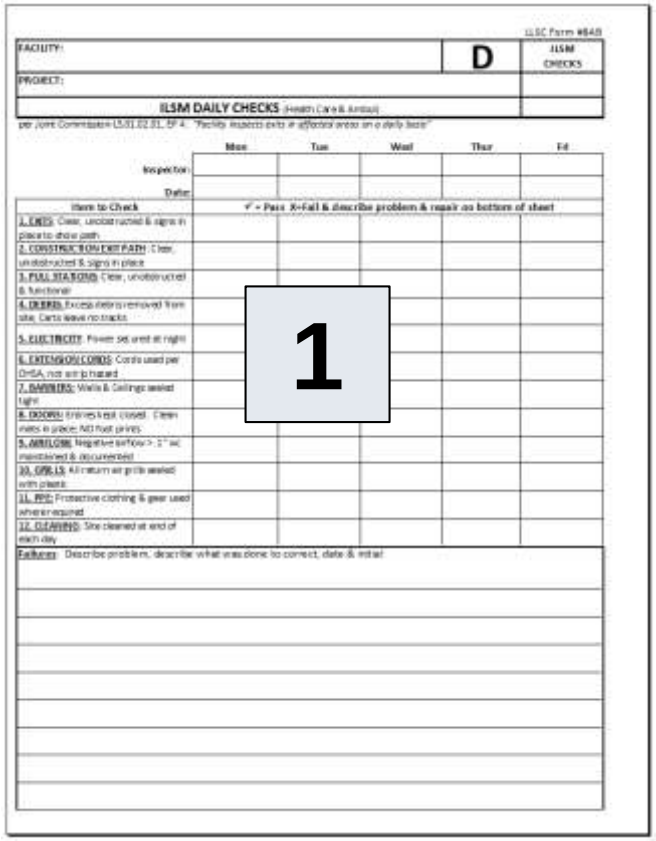
1. Fan large enough for -.02" static pressure* into the construction site (need tight enclosure)

   *-.02" sp recommendation is based on doubling the CDC recommended -.01" for sp care rooms

2. Daily measure & record static pressure

3. Must use HEPA filter if return air to AHU or recirculate within room or building (don't need if exhausting to outside)

2 Examples of ILSM Inspection Tools



LLSC Form #848

FACILITY:	D	ILSM CHECKS
PROJECT:		
ILSM DAILY CHECKS (Health Care & Ambul)		

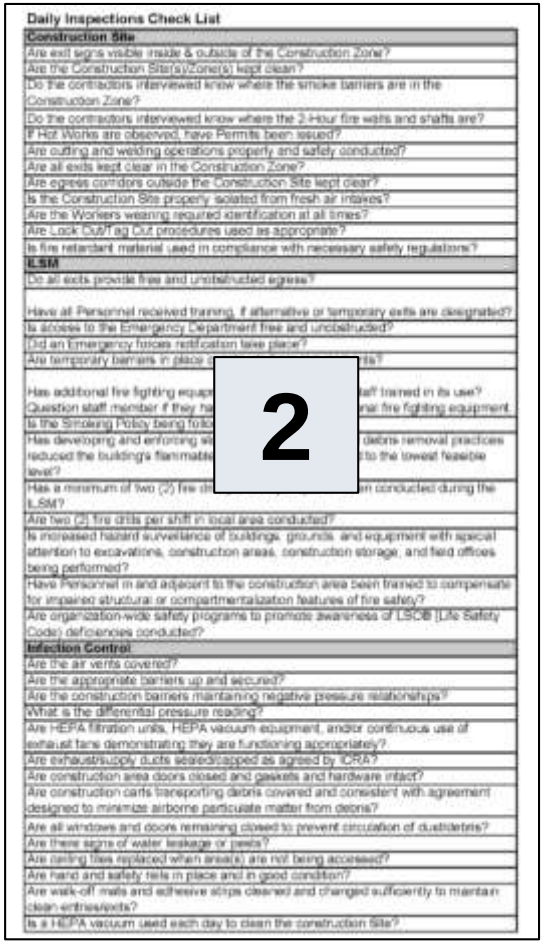
per Joint Commission LS.01.02.01, EP 4: *"Facility inspects exits in affected areas on a daily basis"*

	Mon	Tue	Wed	Thur	Fri
Inspector:					
Date:					

Item to Check	✓ = Pass X=Fail & describe problem & repair on bottom of sheet				
1. EXITS: Clear, unobstructed & signs in place to show path					
2. CONSTRUCTION EXIT PATH: Clear, unobstructed & signs in place					
3. PULL STATIONS: Clear, unobstructed & functional					
4. DEBRIS: Excess debris removed from site; Carts leave no tracks					
5. ELECTRICITY: Power set vent at night					
6. EXTENSION CORDS: Cords used per OHSA, not on trip hazard					
7. BARRIERS: Walls & Ceilings sealed tight					
8. DOORS: Entries kept closed. Clean walls in place; NO foot prints					
9. AIRFLOW: Negative airflow > .2" wc monitored & documented					
10. GRILLS: All return air grills sealed with plastic					
11. PPE: Protective clothing & gear used where required					
12. CLEANING: Site cleaned at end of each day					

Failures: Describe problem, describe what was done to correct, date & initial

1

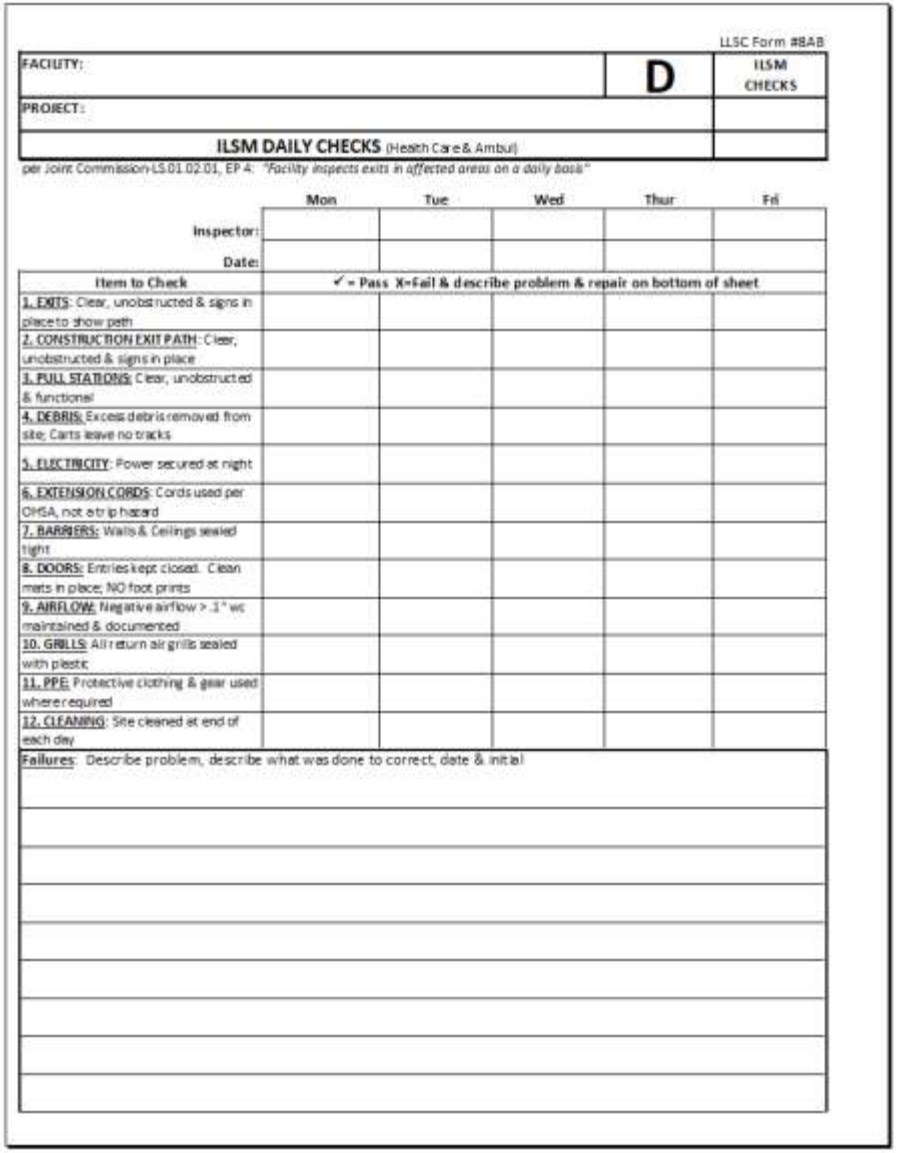


Daily Inspections Check List

Construction Site
Are exit signs visible inside & outside of the Construction Zone?
Are the Construction Site(s)/Zone(s) kept clean?
Do the contractors interviewed know where the smoke barriers are in the Construction Zone?
Do the contractors interviewed know where the 2-Hour fire walls and shafts are?
If Hot Works are observed, have Permits been issued?
Are cutting and welding operations properly and safely conducted?
Are all exits kept clear in the Construction Zone?
Are egress corridors outside the Construction Site kept clear?
Is the Construction Site properly isolated from fresh air intakes?
Are the Workers wearing required identification at all times?
Are Lock Out/Tag Out procedures used as appropriate?
Is fire retardant material used in compliance with necessary safety regulations?
ILSM
Do all exits provide free and unobstructed egress?
Have all Personnel received training, if alternative or temporary exits are designated?
Is access to the Emergency Department free and unobstructed?
Did an Emergency forces notification take place?
Are temporary barriers in place [illegible]?
Has additional fire fighting equip[illegible]aff trained in its use? Question staff member if they ha[illegible]nal fire fighting equipment
Is the Smoking Policy being follo[illegible]
Has developing and enforcing wi[illegible] debris removal practices reduced the building's flammabl[illegible]d to the lowest feasible level?
Has a minimum of Two (2) fire dr[illegible]n conducted during the ILSM?
Are two (2) fire drills per shift in local area conducted?
Is increased hazard surveillance of buildings, grounds, and equipment with special attention to excavations, construction areas, construction storage, and field offices being performed?
Have Personnel in and adjacent to the construction area been trained to compensate for impaired structural or compartmentalization features of fire safety?
Are organization-wide safety programs to promote awareness of LSC® [Life Safety Code] deficiencies conducted?
Infection Control
Are the air vents covered?
Are the appropriate barriers up and secured?
Are the construction barriers maintaining negative pressure relationships?
What is the differential pressure reading?
Are HEPA filtration units, HEPA vacuum equipment, and/or continuous use of exhaust fans demonstrating they are functioning appropriately?
Are exhaust/supply ducts sealed/capped as agreed by ICRA?
Are construction area doors closed and gaskets and hardware intact?
Are construction carts tracreporting debris covered and consistent with agreement designed to minimize airborne particulate matter from debris?
Are all windows and doors remaining closed to prevent circulation of dust/debris?
Are there signs of water leakage or pools?
Are ceiling tiles replaced when area(s) are not being accessed?
Are hand and safety rails in place and in good condition?
Are walk-off mats and adhesive strips cleaned and changed sufficiently to maintain clean entrances/exits?
Is a HEPA vacuum used each day to clean the construction Site?

2

Example #1: ILSM Daily Check Tool



LLSC Form #8AB

FACILITY:	D	ILSM CHECKS
PROJECT:		
ILSM DAILY CHECKS (Health Care & Ambul)		

per Joint Commission-LS.01.02.01, EP 4: *"Facility inspects exits in affected areas on a daily basis"*

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5. ELECTRICITY: Power secured at night					
6. EXTENSION CORDS: Cords used per OHSA, not a trip hazard					
7. BARRIERS: Walls & Ceilings sealed tight					
8. DOORS: Entries kept closed. Clean mats in place; NO foot prints					
9. AIRFLOW: Negative airflow > .1" wc maintained & documented					
10. GRILLS: All return air grills sealed with plastic					
11. PPE: Protective clothing & gear used where required					
12. CLEANING: Site cleaned at end of each day					

Failures: Describe problem, describe what was done to correct, date & initial

Available through Oct 30 for free on the LLSC website: Lauzon-LSC.com

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M-F Inspections

12 Most Important Things to Check

Example #2: ILSM Daily Check Tool

Daily Inspections Check List

Construction Site
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Is access to the Emergency Department free and unobstructed?
Did an Emergency forces notification take place?
Are temporary barriers in place constructed per requirements?
Has additional fire fighting equipment been provided and staff trained in its use? Question staff member if they have been trained on additional fire fighting equipment.
Is the Smoking Policy being followed?
Has developing and enforcing storage, housekeeping, and debris removal practices reduced the building's flammable and combustible fire load to the lowest feasible level?
Has a minimum of two (2) fire drils/per shift/per quarter been conducted during the ILSM?
Are two (2) fire drills per shift in local area conducted?
Is increased hazard surveillance of buildings, grounds, and equipment with special attention to excavations, construction areas, construction storage, and field offices being performed?
Have Personnel in and adjacent to the construction area been trained to compensate for impaired structural or compartmentalization features of fire safety?
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Are construction carts transporting debris covered and consistent with agreement designed to minimize airborne particulate matter from debris?
Are all windows and doors remaining closed to prevent circulation of dust/debris?
Are there signs of water leakage or pests?
Are ceiling tiles replaced when area(s) are not being accessed?
Are hand and safety rails in place and in good condition?
Are walk-off mats and adhesive strips cleaned and changed sufficiently to maintain clean entries/exits?
Is a HEPA vacuum used each day to clean the construction Site?

More Complete Check List

Can be a heavy burden

If used, make sure it's not "pencil-whipped"

Allocate enough time to do a thorough daily check

Let's Look Closer at the Detailed Checks

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Daily Inspections Check List

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Also on Example #1

Example #2: ILSM Daily Check Tool

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Safety Steps In Construction Projects

Welcome to the WHEA

Oct 2019 Lunch & Learn

Lauzon Life Safety Consulting

AGENDA

1. Big Safety Picture
2. Work Phasing
3. Life Safety Assessment
4. ILSM
5. Infection Assessment
6. Barriers & Controls